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INTERNATIONAL

NORWAY'S APOLOGY TO SAMI AND OTHER MINORITY GROUPS FOR ASSIMILATION POLICIES

The story so far:-

Last week, Norway's Parliament, the Storting, issued an unreserved apology for its assimilation policies towards Sami, Kven and Forest Finn peoples. It also laid out a series of resolutions to address the continuing discrimination faced by these communities, The New York Times reported.

A century-long process of Norwegianisation of indigenous peoples and migrant groups commenced in the 1850s and did not officially end till the 1960s. It saw the suppression of indigenous languages and traditional culture. Further, Sami children were separated from their parents and sent to boarding schools all across the Sapmi — 'the land of the Sami' which corresponds with present-day northern Russia, Finland, Norway and Sweden.

Who are the Samis, Kvens and Forest Finns?

Norway has designated certain groups with 'long-standing attachment to the country' as national minorities, including the Kvens/Norwegian Finns, Jews, Forest Finns, Roma and the Romani people. The Sami, meanwhile, are an Indigenous people spread across northern Europe, including Finland, Sweden, Norway and Russia. This region has been called Lapland; however the terms Lapps/Laplanders are considered derogatory by some Sami. Only about 1,00,000 Sami remain. The largest Sami population is concentrated in Norway — considered the heart of Sapmi — in areas such as Finnmark county.

Inhabiting this chilly terrain for centuries, the Sami have developed their own culture and unique way of life. Many are reindeer herders, and the Norwegian government has designated reindeer herding as an activity exclusive to the Sami, issuing herding licenses based on ancestral lands.

Sami languages are any of three languages (sometimes considered dialects of one overarching language) belonging to the Finno-Ugric group of the Uralic language family — North Sami, East Sami and South Sami.

Both Kvens and Forest Finns are much smaller groups (than the Sami) which migrated to present-day Norway around 500 years ago.

Kvens are the descendants of migrants from the Torne River Valley, part of present-day Sweden and Finland, who historically practised slash and burn farming, fishing and blacksmithing. The Kven language, a Finnic language closely related to Meänkieli and Finnish, was recognised as an independent language in Norway in April 2005. Forest Finns, meanwhile, are descendants of immigrants from eastern Finland who settled in Sweden in the 1500s, before making their way to Norway in the early 1600s.

What were the Norwegianisation policies?

Indigenous peoples and minority groups historically faced discrimination from Scandinavian governments, and laws in the second half of the nineteenth century gave this historical prejudice a more solid form in Norway.

Norway engaged in a century-long process of "Norwegiansation" and assimilation, which intensified after the nation gained independence in 1905.

Policies to integrate and assimilate these groups by suppressing their native language and culture emerged. These policies used education and religion as a tool to erase local language and culture. Traditional practices such as 'yoiking,' a traditional call of the Samis, were forbidden during this time. Young Sami children were taken away from their parents and forced to live in foster homes and state-run boarding schools in the 1900s. The government demarcated some regions for "suitable populations," where these groups were not allowed to settle. Groups also lost access to grazing land and fishing grounds.

Native cultural beliefs were suppressed by Christian mission churches belonging to the Evangelical Lutheran and Catholic denominations. The Sami were forced to give up their earlier shamanistic rituals.

Social discrimination persisted under the guise of scientific research. Members from these communities were made to undergo anthropological tests by scientists, and their burial grounds were exhumed to study the ethnic characteristics of their predecessors.

These Norwegianisation policies finally came to an end in the 1960s, with laws formally repealed or replaced in 1963.

What is the Truth and Reconciliation Committee?

Measures at the community and government level were taken up to address the past oppression. Today, the Sami have a university as well as schools teaching the Sami language, and a (mostly symbolic) independently elected Sami Parliament established in 1989, with which the Norwegian parliament has a working relationship. The Education Act of 1969 gave Sami students the right to compulsory and upper-secondary education in their own language, and policies have also sought to integrate the language in school curricula.

Community efforts too have persisted to preserve the unique identity of these groups. For example, Young Forest Finns works to revive the group's culture and also has a museum under development.

The Truth and Reconciliation Commission was launched in 2018 to investigate the historical injustice and suggest measures for inclusion and revitalisation versus earlier policies of Norwegianisation and assimilation.

The Committee released a 700-page report on June 1, 2023. The current apology and a set of 17 resolutions to address prejudice against these groups stem from this report, which took 35 hours to read aloud in parliament, and was broadcast nationally. Recommendations in the report included the establishment of a centre for reconciliation work, preservation of minority and indigenous languages and language training.

Other Nordic nations too have launched similar commissions, including the Truth Commission for the Sami People in Sweden and the Truth and Reconciliation Commission Concerning the Sami People in Finland. Both are expected to present their reports sometime next year.

What is the current apology?

The unreserved apology was tendered last week to the Sami, Kvens and Forest Finns by the Norwegian parliament following on the heels of last year's Truth and Reconciliation Commission report. The move was approved by the Parliament and the apology read out loud on November 11.

All lawmakers except one group — a bloc from the right-wing Progress Party — voted for the resolution. This cited possible conflict among communities as a reason for voting against it. In a debate held in May, the party's leader, Bard Hoksrud, said it was " fundamentally wrong to give special privileges to some groups at the expense of others," adding that they believed that "history should remain history."

In a written response to a question from a journalist, Conservative party member Svein Haberg said, "The assimilation policy that was historically pursued continues to be both the root of personal hardship for the individuals and groups that were subject to this policy, and a source of conflict today."

Silje Karine Muotka, a Sami leader, called it "a day with many emotions," in a written statement. "Going forward, we expect an active policy of reconciliation…..The decision from today ensures long-term follow-up, and it has both financial and legal repercussions. But unfortunately, no settlement is made with ongoing injustice and conflicts over land and water," she wrote.

In 1977, King Harald V apologised to the Sami people, and Sami People's Day has been celebrated since 1993 on February 6 (the first Sami National Congress was held on February 6, 1917 in Trondheim, Norway). However, this is the first instance of a public apology to the Kvens and Forest Finns.

What are the continuing challenges?

Even after the formal repealing of the laws, prejudice in the nation has continued. The report by the Truth and Reconciliation Commission found that members of these groups have less access to health care in Norway, a country with a robust social security net.

The Sami have had a longstanding dispute with the Norwegian government over their way of life and land use, although some laws exist over the Samis' right to grazing land. A 2007 law sought to limit the size of reindeer herds — ostensibly to prevent overgrazing, a move opposed by some Sami herders.

Indigenous and minority languages, too, remain critically endangered. Bullying, hate speech and harassment has persisted, as have negative stereotypes.

As reported by The New York Times, a 2021 survey was conducted as part of an Arctic University of Norway project which studied the efficacy of the Truth and Reconciliation Commission. According to the results of this survey, 60% of Norway residents said they thought most people knew little to nothing about how the assimilation policies affected the Sami. That figure rose to 88% when it came to how the practices affected Forest Finns and Kvens.

The project was led by Eva Josefsen, a political scientist at the Arctic University who is Sami herself. She highlighted that the lack of transparency about land rights was a sticking point, saying that there was a "general implementation gap between legal rights and what is actually delivered."

THE OUTSIDER

"He's [Donald Trump] essentially pimping out our men and women in uniform to a foreign power who's the highest bidder... He is unfit to be our commander-in-chief." These were the words of Tulsi Gabbard, President-elect Trump's pick for Director of National Intelligence, back in 2019. Clearly Ms. Gabbard's loyalties have changed since then.

Ms. Gabbard started public life by getting elected to the Hawaii House of Representatives in 2002 at the age of 21. She had to step down from the role in 2003, as her National Guard regiment was called for duty in Iraq. She would later serve in Kuwait and work her way up the ranks to the post of Lieutenant Colonel in 2021.

Conflicting policies

She started her tenure in the U.S. Congress as a Democrat, representing Hawaii's second congressional district, in 2013. She was also the first Hindu in the U.S. Congress. Her political portfolio has been marked by diverse but often conflicting policies. Ms. Gabbard, perhaps owing to her time in the Army, has been a strong advocate against U.S. military interventionism. The New Yorker once quoted her as saying "If our troops are sent to fight a war, it must be the last option."

One such 'intervention' Ms. Gabbard once decried was Mr. Trump's push for escalating the war in Syria. In 2018, she accused Mr. Trump and then Vice-President Mike Pence of protecting "al-Qaeda and other jihadist forces in Syria," all the while "threatening Russia, Syria, and Iran, with military force if they dare attack these terrorists."

When Russia invaded Ukraine in February 2022, Ms. Gabbard spoke about the "legitimate" security concerns Russia had if Ukraine were to join NATO. "This war and suffering could have easily been avoided if Biden Admin/NATO had simply acknowledged Russia's legitimate security concerns," she posted on Twitter (now X) at the time.

With respect to Syria, Ms. Gabbard has been accused of cosying up to 'dictators' such as Bashar al-Assad. As a member of Congress, Ms. Gabbard once moved outside of official channels to meet the Syrian leader in 2017. The meeting kicked up a storm among her then-fellow Democrats who said she was giving legitimacy to a leader accused of various war crimes.

However, the former Congresswoman has taken a tough line on Islamist extremism. She has condemned al-Qaeda, the Islamic State and more recently Hamas.

Breaking loose

Ms. Gabbard's allegiances have undergone a 180-degree shift. In 2016, Ms. Gabbard endorsed Bernie Sanders for President over Hillary Clinton. In 2020, she unsuccessfully ran for Democratic nomination and later endorsed Joe Biden. And in 2022, she left the Democratic Party, accusing them of being an "elitist cabal of warmongers" driven by "cowardly wokeness". She then registered as an independent and became a frequent contributor to Fox News wherein she espoused conservative ideas about gender and freedom of speech. And earlier this year, she joined the Republican party and endorsed Donald Trump for President.

While her nomination as Director of National Intelligence needs Senate confirmation, Ms. Gabbard's selection has already created controversy citing her past political positions and her lack of experience. According to CNN, Ms. Gabbard was briefly placed on a Transportation Security

Administration list that prompts additional security screening before flights after her overseas travel patterns and foreign connections triggered a government algorithm. And now by being director, she will oversee agencies such as the CIA, the FBI and the NSA.

This is of particular interest as Ms. Gabbard has been a fierce defender of Julian Assange and Edward Snowden, both men who have been accused by the U.S. government of leaking national secrets to the public. It remains to be seen how she makes sense of her position as both a defender of whistleblowers and as protector of national intelligence.

WHO IS DR JAY BHATTACHARYA, CRITIC OF US PANDEMIC POLICIES NOW NOMINATED BY DONALD TRUMP AS NIH DIRECTOR

The United States President-elect Donald Trump has nominated Indian-origin Dr Jay Bhattacharya to be the director of the National Institutes of Health (NIH), the country's medical research agency, equivalent to but with an exponentially larger budget than the Indian Council of Medical Research (ICMR) based in New Delhi.

Bhattacharya garnered national attention for his opposition to lockdown, mask mandates, and repeated booster shots during the pandemic (despite publicly admitting that vaccines are effective). He will work with Robert F Kennedy Jr, Trump's pick for Secretary of Health and Human Services, who is a vocal anti-vaxxer. RFK Jr's department is the parent body of the NIH.

MORAL STAIN

The decision by the International Criminal Court (ICC) to issue arrest warrants against Israeli Prime Minister Benjamin Netanyahu and former Defence Minister Yoav Gallant for alleged war crimes and crimes against humanity in Gaza marks a diplomatic and moral setback for Israel, which has been attacking the tiny Palestinian enclave for over 13 months. The ICC has also issued arrest warrants for two Hamas leaders, Yahya Sinwar and Mohammed Deif, regarding the October 7, 2023 attack on Israel. Sinwar, Hamas's chief in Gaza, was killed by the Israeli army on October 16, and Deif, the head of Hamas's military wing, was reportedly killed in an Israeli air strike in July. Thus, the practical focus of the warrants remains on Mr. Netanyahu and Mr. Gallant. Mr. Netanyahu has rejected the warrant as "anti-Semitic", a frequent retort to criticism. The U.S., Israel's closest ally, has said it "fundamentally rejects" the ICC's decision. The ICC does not have a police force to carry out arrests, and until the accused are arrested, their trial cannot take place since the court does not have a mandate to conduct trials in absentia. Nevertheless, the warrants would complicate the ability of Mr. Netanyahu and Mr. Gallant to travel freely across the globe. As the Rome Statute of the ICC has been recognised by 124 countries, they would be legally obligated to arrest them if they enter their territories. The ICC asserts there are "reasonable grounds" to believe that Mr. Netanyahu and Mr. Gallant bear "criminal responsibility" for causing "mass starvation" and "deliberately targeting" medical facilities in Gaza. Israel contends that it is fighting terrorism and adhering to international law. However, the numbers from Gaza suggest otherwise — nearly 44,000 deaths and more than 1,00,000 wounded. And, Gaza's population of around 2.3 million has been displaced, some multiple times.

The International Court of Justice has previously urged Israel to take measures to avoid genocide in Gaza, and the UN Security Council has called for a ceasefire. Yet, Israel continues its military actions with the full backing of the Biden administration, resulting in more deaths and suffering. This war has left a moral stain on Israel and its supporters, and the ICC arrest warrants serve to endorse growing international criticism of Israel's actions. While Mr. Netanyahu and Mr. Gallant

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may not be arrested or tried, the warrants deepen Israel's international isolation and complicate its diplomatic relations. The sooner Mr. Netanyahu ends this aimless, disastrous and disproportionate war and shifts towards diplomacy, the better it will be for the state of Israel.

WHY NETANYAHU ACCEPTED A CEASEFIRE WITH HEZBOLLAH

When Prime Minister Benjamin Netanyahu decided to launch a military invasion of Lebanon on October 1, he said his main objective was to let the over 60,000 northern Israelis, who were displaced by Hezbollah rockets, return to their homes. Almost two months later, he accepted a ceasefire with Hezbollah. The future of the displaced residents remains uncertain. Hezbollah still possesses thousands of drones and rockets. Then why did Mr. Netanyahu accept the ceasefire?

According to the agreement, Hezbollah would withdraw its troops and weapons to the north of the Litani River, and Israel would withdraw its troops from southern Lebanon. The Lebanese Army would be deployed in the south, between the Litani and the Israeli border, to monitor the ceasefire. The withdrawals would take 60 days. Israel says if Hezbollah violates the terms of the agreement or tries to rearm itself, it reserves the right to resume fighting.

Three reasons

Mr. Netanyahu gave three reasons. He believes a ceasefire with Hezbollah would allow Israel to focus more on Iran; two, focus on resupplying its own forces who are increasingly facing the fatigue of the two-front war and Israel can isolate Hamas in the ongoing war in Gaza.

To be sure, Israel has dealt heavy blows to Hezbollah. First, the pager and walkie-talkie explosions across Lebanon hit Hezbollah's rank and file. Then Israel carried out massive bombings decapitating Hezbollah's senior leadership, including Hassan Nasrallah. The south Beirut neighbourhood of Dahiye, a Hezbollah stronghold, was subjected to massive bombings. So were the villages in south Lebanon.

Israel also forced Hezbollah to decouple Lebanon from Gaza. The Shia militant group started firing rockets into Israel in October 2023, declaring "solidarity with the Palestinians". Nasrallah, the former Hezbollah chief killed by Israel, had said in the past that Hezbollah would declare a ceasefire only if Israel declared a ceasefire in Gaza. But now, Hezbollah declared a ceasefire in return for Israel's ceasefire and withdrawal from Lebanon, while Israel's war on Gaza continues.

Yet, Israel failed to meet its declared objectives in Lebanon. Israeli troops did not make much territorial gains in southern Lebanon even after two months of fighting. Worse, they failed miserably in destroying or deterring Hezbollah's rocket capabilities. On November 24, a few days before the ceasefire was announced, Hezbollah fired more than 250 rockets into Israel. The high-security locations hit by Hezbollah rockets and drones included a private residence of Prime Minister Netanyahu and a military base in Binyamina.

Heat of war

Israel was also taking heavy casualties. In October alone, it lost some 35 soldiers in southern Lebanon. So unlike in Gaza, where the remainder of Hamas is operating like a loose insurgency from the ruins of the strip, Israel was facing intense heat in Lebanon. The Biden administration, which fully backed Israel's war on Gaza, had also heaped up pressure on Israel over Lebanon.

When the Israel-Hezbollah war of 2006 came to an end, the UNSC Resolution 1701 demanded a full withdrawal of the Israeli troops from Lebanon and Hezbollah from the south. It had also called for the deployment of the Lebanese army in the south and the disarmament of Hezbollah. The latest ceasefire agreement is rooted in Resolution 1701. Israel withdrew in 2006, but Hezbollah only grew stronger, by stockpiling more weapons, deepening its presence in the south and building itself as a powerful political and social actor in Lebanon.

Today, Hezbollah has been weakened, but is far from being defeated. Expecting the Lebanese army, which is an inferior fighting force to Hezbollah, to enforce the ceasefire would be myopic, given the past experiences. Mr. Netanyahu might want to sell the ceasefire as a victory for Israel. But facts on the ground offer a different picture.

IRAN TO HOLD NUCLEAR TALKS WITH EUROPEAN POWERS IN GENEVA

Iran will hold talks about its disputed nuclear programme with three European powers on Nov. 29 , the Iranian foreign ministry said on Sunday, days after the UN atomic watchdog passed a resolution against Tehran.

• Iran is scheduled to engage in discussions with France, Germany, and Britain on November 29 in Geneva, focusing on its disputed nuclear program. This meeting follows a resolution by the U.N. atomic watchdog criticizing Iran, leading Tehran to activate new advanced centrifuges for uranium enrichment.

• Deputy foreign ministers from Iran, France, Germany, and Britain will participate, addressing both the nuclear issue and regional matters such as Palestine and Lebanon.

• The talks are set ahead of U.S. President-elect Donald Trump's inauguration, with hopes of resolving the nuclear deadlock exacerbated since the U.S. withdrawal from the 2015 nuclear pact and the reimposition of sanctions in 2018.

• Iran emphasizes its belief in resolving the nuclear issue through diplomacy, stating it has never abandoned the talks.

• Indirect negotiations to revive the 2015 nuclear pact have so far been unsuccessful, but Trump emphasized the necessity of reaching a deal during his campaign.

Do You Know:

• The U.N. atomic watchdog's 35-nation Board of Governors passed a resolution on Thursday again ordering Iran to urgently improve cooperation with the agency and requesting a "comprehensive" report aimed at pressuring Iran into fresh nuclear talks.

• Britain, France, Germany and the United States, which proposed the resolution, dismissed as insufficient and insincere a last-minute Iranian move to cap its stock of uranium that is close to weapons-grade. Diplomats said Iran's move was conditional on scrapping the resolution.

• The IAEA and Iran have long been locked in standoffs on a range of issues including Tehran's failure to explain uranium traces found at undeclared sites, its barring last year of most of the agency's top uranium-enrichment experts on the Iran inspection team, and its refusal to expand IAEA monitoring.

• In 2018, the then-Trump administration exited Iran's 2015 nuclear pact with six major powers and reimposed harsh sanctions on Iran, prompting Tehran to violate the pact's nuclear limits, with moves such as rebuilding stockpiles of enriched uranium, refining it to higher fissile purity and installing advanced centrifuges to speed up output.

• Indirect talks between President Joe Biden's administration and Tehran to try to revive the pact have failed, but Trump said during his election campaign in September: "We have to make a deal, because the consequences are impossible. We have to make a deal".

PROTEST NATION

Another mass protest. Another shutdown of the capital city. And another violent crackdown on the protesters by the security forces. Pakistan is witnessing circles of crises, with a prolonged showdown between the military-backed government and the Pakistan Tehreek-e-Insaf (PTI), the party of jailed former Prime Minister Imran Khan. In the latest episode, PTI supporters marched towards the capital, after Mr. Khan made the "final call" for protests, demanding the release of their leader and other party functionaries. The government of Prime Minister Shehbaz Sharif had taken many preventive measures — thousands of PTI workers were arrested, security forces blocked city entrances with shipping containers and tens of thousands of forces were deployed. Still, many of the protesters managed to reach D-Chowk, the main protest town square in Islamabad. The PTI later called off the rally temporarily after the protesters were pushed back by the security personnel. But their main demands remain unchanged, and given the pattern of protests in Islamabad in recent years, it could only be a matter of time before the PTI launches another 'long march'.

Mr. Khan, in jail for more than a year, has a list of grievances. Once a favourite of Pakistan's powerful establishment, he had back-to-back political and legal setbacks after falling out of favour with the generals in 2022. He faces over 150 criminal cases. There was a crackdown on the PTI ahead of the February elections and it was barred from using its popular 'cricket bat' poll symbol. Still, PTI candidates, who contested as independents, emerged as the largest bloc in the new Parliament. The Pakistan Muslim League-Nawaz and the Pakistan People's Party joined hands with smaller parties to form a coalition government, with the establishment's blessings. Mr. Khan says the election was rigged and the cases against him politically motivated. Despite the crackdown, the PTI possesses enormous street power and Mr. Khan's calls from jail for protests have set the country towards a prolonged showdown. And this is happening at a time when Pakistan, which has entered into a deal with the IMF for a $7 billion bailout package, is struggling to stabilise an economy battered by hyperinflation, a falling currency, and depleting reserves. Political instability is making the painful economic recovery even more complicated. The military and government have, so far, taken a no-compromise approach. Their attempts to break the PTI and Mr. Khan's political base have barely been successful. Mr. Khan has proved that he can continue to challenge the establishment even from within his jail cell. For political stability and a healthy economic recovery, Pakistan's establishment should be willing to heed the pro-democracy protesters.

EXPLAINED: SHIA VS SUNNI IN THE KILLING FIELDS OF PAKISTAN'S KURRAM

Sectarian violence is sweeping through the picturesque Kurram district in Pakistan's northwestern Khyber Pakhtunkhwa province after more than 45 Shia travellers were massacred by militants in Bagan town on November 21.

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At least 64 people have been killed in three days of clashes between Shia and Sunni tribal groups since then, including 21 killed overnight on Saturday, Dawn reported on Sunday.

Sectarian killings are fairly common in Pakistan, and Kurram has a history of violence rooted in pervasive governance failures, tribal rivalries, and external geopolitical influences.

Shias and Sunnis in Kurram

Kurram is adjacent to the Afghan provinces of Logar, Paktia, Khost, and Nangarhar to the south and east of Kabul, and has multiple border crossings along the 192-km Durand Line to its west, including the historic Peiwar Kotal pass through which the shortest route to the Afghan capital passes.

More than 99% of Kurram's 7.85 lakh population (2023 census) are Pashtuns belonging to the Turi, Bangash, Zaimusht, Mangal, Muqbal, Masuzai, and Parachamkani tribes. The Turi and some Bangash are Shia, the rest are Sunni.

According to a presentation made before Pakistan's Election Commission in 2018, Shias make up around 45% of the district's population, more than thrice their 10-15% share in Pakistan's population as a whole. The majority of Shias live in Upper Kurram tehsil; Sunnis dominate Lower and Central Kurram.

Upper Kurram has far better literacy and economic development indicators than the Sunni-dominated tehsils. Bagan, on the route from the district headquarters of Parachinar to the Peshawar provincial headquarters, is in Lower Kurram.

Fault lines that persisted

The Shia Turi once controlled much of the land in what is now Upper and Lower Kurram, but are now mostly restricted to Upper Kurram. According to some estimates, as much as 83% of the tehsil's population is Shia (Turi and some Bangash).

Sectarian tensions are often an extension of persistent tribal rivalries and competition for resources in a region not blessed with abundance. The use of patronage and bribery by the British to "control" the northwestern frontier benefitted certain tribes and clans at the cost of others, which led to deep-seated grievances that continue to surface in the form of land disputes.

Even after the British left, not much changed in the way the region was ruled. Kurram became part of the Federally Administered Tribal Areas (FATA), where early 20th century laws applied until as recently as 2018, when FATA was merged with Khyber Pakhtunkhwa.

Developments in the 80s

Three almost-simultaneous developments during the Cold War played a role in shaping today's tensions.

The Islamic Revolution and creation of a Shia theocracy in Iran in 1979 gave rise to geopolitical competition between Saudi Arabia and Iran. Kurram became a proxy battleground, with the Iranians and the Saudis backing the Shia and Sunni groups respectively. It was at this time that old tribal fault lines began to assume an overtly sectarian character.

Second, and more important, was the decade-long Soviet-Afghan War of 1979-89, during which Kurram became a launching pad for the US-backed mujahideen, as well as the refuge for (mostly

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Sunni) Afghans fleeing the conflict. The war triggered a cycle of events that eventually led to the rise of various armed groups and militias in Kurram.

Over the past three decades, several militant groups including the anti-Shia Pakistani Taliban (TTP) and Islamic State, have made Kurram their base, moving back and forth across the porous border with Afghanistan, and using the remote mountainous terrain to their advantage.

The policies of Gen Zia-ul-Haq, the military ruler of Pakistan from 1977 to 1988, is the third important historical development that contributed to the present situation in Kurram. Sunni Islamisation was the centrepiece of Zia's political project, and it gave rise to sectarian tensions across Pakistan. In Kurram, Zia used the influx of Sunni Afghan refugees to weaken the Shia Turi.

Continuing clashes, violence

All these factors triggered intermittent sectarian violence in Kurram, especially after the rise of the Afghan Taliban over the past three decades. The TTP has tapped into local grievances about the lack of governance and development, while feeding off existing sectarian divisions.

Between 2007 and 2011, more than 2,000 people, both Shia and Sunni, were killed, more than 5,000 were injured, and tens of thousands were displaced, according to official Pakistan government data. This year has seen bloodshed since late July when a land dispute between the Mali Khel, a sub-tribe of the Shia Turi, and the mainly Sunni Madgi Kalay tribe in an area south of Parachinar led to the killings of almost 50 people.

Tightened security measures and restrictions on travel have failed to stop repeated tit-for-tat attacks ever since.

NATION

WHY HAS GAUTAM ADANI BEEN INDICTED?

The story so far:

On November 21, federal prosecutors in New York indicted Adani Group Chairman Gautam S. Adani, his nephew Sagar Adani, and six others on multiple counts of fraud. The charges stem from an alleged multibillion-dollar scheme to bribe Indian officials in exchange for favourable terms on solar power contracts, which were projected to generate over $2 billion in profits. "This indictment alleges schemes to pay over $250 million in bribes to Indian government officials, to lie to investors and banks to raise billions of dollars, and to obstruct justice," a press release issued by the U.S. Attorney's Office, Eastern District of New York, said quoting Deputy Assistant Attorney General Lisa Miller.

Who are the defendants?

The defendants named in the case, alongside Gautam Adani and his nephew Sagar Adani (executive director of Adani Green Energy), include — Vneet Jaain, former CEO of Adani Green Energy; Ranjit Gupta, who served as CEO of Azure Power Global from 2019 to 2022; Rupesh Agarwal, who headed Azure Power Global from 2022 to 2023; Cyril Cabanes, former managing director of Caisse de dépôt et placement du Québec (CDPQ) which is a majority stockholder of Azure Power; Saurabh Agarwal, former managing director of CDPQ India; and Deepak Malhotra, former executive of CDPQ.

What is the heart of the indictment?

A novel tender floated by the state-owned Solar Energy Corporation of India (SECI) in 2019 forms the heart of the indictment that has accused the Adani Group Chairman and his associates of paying over $250 million in bribes to Indian government officials. The manufacturing-linked solar tender was eventually awarded to Adani Green Energy and Azure Power with the former claiming in a press statement at the time that it had won "the world's largest solar award". According to the indictment, the $6 billion investment was projected to yield over $2 billion in post-tax profits over 20 years. However, the project encountered an unexpected setback — SECI was unable to sign power supply agreements (PSAs) with State electricity distribution companies (DISCOMs) due to "high energy prices". At this point, Adani Green executives allegedly bribed government officials in several States, including Odisha, Andhra Pradesh, Tamil Nadu, Chhattisgarh, and Jammu and Kashmir, to pressure their power distribution companies into agreeing to purchase solar power at above-market rates. The U.S. case is based on the premise that this is where the corruption took place, and that Adani Green failed to disclose this information to its investors in the U.S., constituting fraud under federal securities law.

The U.S. prosecutors have further alleged that Gautam Adani personally met with an unnamed "high-ranking government official of Andhra Pradesh" in August 2021 to expedite the execution of a PSA between SECI and the State's DISCOMs, during which approximately ₹1,750 crore (85% of the alleged bribe) was purportedly offered to the official.

What are the charges?

The indictment accuses Adani and his associates of conspiring to bribe Indian officials to secure energy contracts in a purported violation of the Foreign Corrupt Practices Act (FCPA). Although

enacted in 1977, the law has been more stringently enforced in recent decades resulting in substantial fines for major companies, including Germany's Siemens, Brazil's state-owned Petrobras, and a subsidiary of Halliburton, the oil services giant.

President-elect Donald J. Trump reportedly wanted to strike down the legislation in his first term since he considered it "unfair" to American companies. Another prominent critic of the law, Jay Clayton, whom Trump appointed as U.S. Attorney for the Southern District of New York, contended in a 2011 paper that U.S. anti-bribery policies disproportionately burdened American companies in international transactions, thereby undermining U.S. competitiveness.

The prosecutors have alleged that the defendants meticulously tracked their bribes and offers to Indian officials using messaging apps, phones, and PowerPoint presentations, often employing "code names" in their communications. It was further claimed that two of the defendants even engaged in discussions to delete "incriminating electronic materials, including emails, electronic messages and a PowerPoint analysis."

The defendants also stand accused of engaging in securities and wire fraud to fund the operations of Adani Green Energy and its subsidiaries. They allegedly concealed FCPA violations to secure over $3 billion in bank loans from international financial institutions and U.S.-based asset management firms. "Gautam and Sagar Adani were engaged in the bribery scheme during a September 2021 note offering by Adani Green that raised $750 million, including approximately $175 million from U.S. investors. The Adani Green offering materials included statements about its anti-corruption and anti-bribery efforts that were materially false or misleading," the indictment said. Additionally, Adani and his associates have been accused of withholding information from U.S. investors as well as Indian stock exchanges regarding ongoing federal investigations into their business practices in 2023 and 2024.

Former employees of CDPQ — Cyril Cabanes, Saurabh Agarwal, and Deepak Malhotra — have been accused of obstructing an investigation into the bribery scheme by deleting emails and agreeing to provide false information to the U.S. government. In response to the indictment, CDPQ issued a statement saying, "CDPQ is aware of charges filed in the U.S. against certain former employees. Those employees were all terminated in 2023 and CDPQ is co-operating with U.S. authorities. In light of the pending cases, we have no further comment at this time."

What about the civil lawsuit?

The U.S. Security and Exchange Commission (SEC) has filed a parallel civil lawsuit against Adani and his associates "for conduct arising out of a massive bribery scheme". The complaint alleges that they engaged in a scheme that involved "paying or promising to pay the equivalent of hundreds of millions of dollars in bribes to Indian government officials to secure their commitment to purchase energy at above-market rates". This was reportedly done while simultaneously raising $175 million from U.S. investors, based on "materially false and misleading" statements. If proven, the charges could invite hefty financial penalties and a ban on the defendants from holding directorial or executive positions in companies that fall under U.S. exchange regulations.

What happens next?

The U.S. prosecutors have sought the forfeiture of properties or proceeds derived directly or indirectly as a result of the offences. The case will now proceed to the "arraignment" stage where the concerned judge will formally communicate the charges to the defendants and decide whether

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to grant bail or not. The defendants will then be required to enter a plea — either guilty or not guilty. If they plead not guilty, the case will move forward to a jury trial. However, there is also a possibility of a deal being struck between the Indian tycoon and U.S. authorities following which the billionaire could seek a dismissal of the indictment.

As soon as news of the indictment broke, Adani Green Energy Ltd, the company at the heart of the allegations, cancelled a $600 million bond sale, the proceeds of which were intended to refinance a foreign-currency loan. Several Adani Group shares, including those of the flagship firm Adani Enterprises, also suffered massive losses and hit their lower circuits in early trade. An Adani Group spokesperson, however, dismissed the allegations as baseless, asserting that the conglomerate remains fully compliant with all applicable laws. In a notable fallout, Kenyan President William Ruto has announced the cancellation of a procurement process expected to hand over control of the country's main airport to the Adani Group. A 30-year, $736-million public-private partnership deal the Kenyan energy ministry had signed with a unit of the Adani Group last month to construct power transmission lines has also been cancelled.

ADANI POWER PROJECTS: BANGLA HIRING FIRM TO AID REVIEW, LANKA TO LET CABINET DECIDE

With US prosecutors indicting Adani Group chairman Gautam S Adani and seven others for allegedly offering bribes to Indian government officials, Bangladesh has decided to hire a "reputed legal and investigative firm" to assist its "review" of major power generation contracts including the Adani power trading pact.

• The ongoing legal issues and governmental reviews in Bangladesh and Sri Lanka may impact the progress and viability of Adani's power projects in these countries.

—The Bangladeshi government has established a committee led by Judge Moyeenul Islam Chowdhury to reassess power generation contracts, including the one with Adani Power.

—The committee has recommended that the interim government hire an international legal firm to thoroughly investigate these agreements, aiming to ensure adherence to international arbitration standards.

—The review encompasses contracts signed between 2009 and 2024, scrutinizing both solicited and unsolicited agreements for financial, environmental, and sustainability concerns.

• Sri Lanka's government has deferred the final decision on the Adani power project to the Cabinet, indicating a cautious approach in light of recent developments.

• Adani Green Energy is set to invest $442 million in a wind power project in Mannar and Pooneryn, aiming to generate 484 megawatts of wind power over 20 years.

• Gautam Adani and seven others have been indicted by a U.S. federal court on charges of fraud and corruption, accused of paying substantial bribes to secure favourable contracts in India's solar energy sector.

• The U.S. International Development Finance Corporation is reassessing its involvement in Adani's Sri Lanka project, reflecting the broader implications of the legal challenges on Adani's international ventures.

Do You Know:

• The Bangladesh interim government, under Prof Muhammad Yunus, had formed a high-level inquiry committee, consisting of energy and legal experts, to re-examine the country's power purchase agreement (PPA) with the Adani Group signed in 2017. This was in line with the direction of the Bangladesh high court.

—On November 19, a two-judge bench, comprising Justice Farah Mahbub and Justice Debasish Roy Chowdhury, asked the government to submit the committee's report within two months, Bangladesh's news agency UNB had reported.

—Additionally, the HC had ordered the government to submit all documents related to the 25-year deal between the power division and Adani Group in a month's time.

• In November 2017, Adani Power (Jharkhand) Ltd (APJL) signed a 25-year 1,496 MW (net) Power Purchase Agreement with the Bangladesh Power Development Board. Under this, Bangladesh would buy 100 per cent electricity produced by AJPL's Godda plant. The unit, which runs on 100 per cent imported coal, was declared a Special Economic Zone by the Indian government in March 2019.

—The Godda plant, fully commercially operational during April-June 2023, supplies 7-10 per cent of Bangladesh's base load. In 2023-24, it exported about 7,508 million units of power, or almost 63 per cent of India's total power exports of 11,934 million units to Bangladesh.

—In value terms, India's power exports to Bangladesh had crossed $1 billion, almost 10 per cent of India's total exports to its neighbour.

• In the case of Sri Lanka, the new government led by Anura Kumara Dissanayake is yet to take a final decision regarding the Adani Green Energy Ltd. (AGEL) wind power project in Mannar and Pooneryn, among other ongoing investments in the country.

BHUTAN PITCHES GELEPHU AS BIGGEST COOPERATIVE PROJECT

Pitching the upcoming Gelephu Mindfulness City as the biggest "cooperative project" in Bhutan, its Prime Minister, Tshering Tobgay, said here on Monday that he was grateful for India's support for the 2,500-sq. km "Zero Carbon" city being developed.

Mr. Tobgay was speaking at the first "Global Conference of the International Cooperative Alliance", inaugurated by Prime Minister Narendra Modi.

Cooperative spirit

"The Gelephu Mindfulness City is designed to be a hub of knowledge, technology, and finance, grounded in the values of mindfulness, sustainability and harmony," the Bhutanese Prime Minister said, adding that it "embodies the cooperative spirit, as every citizen of Bhutan is both a shareholder and a stakeholder, actively participating in this significant initiative".

Since the announcement of plans for Gelephu city last December, situated to the south of Bhutan and bordering Assam, Bhutanese King Jigme Khesar Namgyel Wangchuck has visited India twice to discuss his plans for the city, and to seek investment and collaborations from the Indian private sector in infrastructure development, bringing projects in areas such as hotels and hospitality, educational institutions, IT and wellness centres.

TARGETING MINORITIES

Violent protests and clashes, after the arrest of Chinmoy Das, a Hindu monk and leader of one of the newer minority rights groups, that led to a lawyer dying at a Chittagong court are clear proof, if any was needed, that the law and order situation in Bangladesh remains precarious. The protests, by thousands from the group representing 'Sanatani Hindus' (called the Bangladesh Sommilito Sanatani Jagran Jote), have a key demand — that the Muhammad Yunus-led interim government secures the safety of the country's 20-million strong religious minorities — Hindus, Christians and Buddhists — who have been targeted by Islamist majoritarian mobs. In more than 2,000 documented acts of violence, at least nine minority members have been killed, ostensibly in protests targeting supporters of Ms. Hasina's Awami League party; there is a visible communal angle too. Mr. Das, who has also been associated with the Bangladesh chapter of the ISKCON, highlighted an eight -point list of demands. These include speedy trials for cases of minority persecution; a minority protection law and a minority affairs ministry, and five-day public holidays for Durga Puja. The government has not responded so far although Mr. Yunus has met with minority representatives and visited the Dhakeshwari temple. Instead, it would seem that Bangladesh forces have been empowered to crack down on all such protests, even if lawful and peaceful. The case against Mr. Das pertains to a group of Hindus who raised saffron flags, allegedly holding them higher than the Bangladesh national flag. The political activist who filed the case of sedition has since been expelled from the Bangladesh Nationalist Party, fuelling suspicions that action on the case was unwarranted. In such a charged environment, the summary arrest and custody of a senior religious figure will only ignite communal tensions.

The actions, as well as a move to push a ban of the ISKCON group through the courts, are also fuelling criticism of the Yunus government. New Delhi has been consistently vocal in asking Bangladesh to protect its minorities, and to refrain from such heavy-handed treatment of a revered figure. However, due to the Modi's government's tense ties with the Yunus regime, these calls have not made much headway. In a stern pushback, the Bangladesh Foreign Ministry expressed "dismay and hurt" at India's statements, accusing India of "misrepresenting" the situation. The Bangladeshi government also defended the "specific charges" against Mr. Das. If New Delhi wishes to ensure that minorities feel more secure in Bangladesh, it must attempt reopening bilateral channels of communication. India must recognise that its voice will only be respected if it is able to ensure protections and freedoms to all citizens in exactly the measure it advocates abroad, particularly in the immediate neighbourhood, where the risk of religious majoritarianism runs high.

HOW 'SOCIALIST' AND 'SECULAR' WERE INSERTED IN THE PREAMBLE, WHY SC RULED THEY WILL STAY

Almost exactly 75 years since the Constitution of India was adopted, the Supreme Court on Monday (November 25) upheld the insertion of the words 'socialist' and 'secular' in the Preamble of the founding document.

Through the Constitution (Forty-Second Amendment) Act, 1976 (42nd Amendment), Parliament during the Emergency enacted a sweeping series of amendments to the Constitution, one of which was labelling India a "SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC".

Though the Supreme Court has curbed some of the more controversial changes introduced through the 42nd amendment, it refused to interfere with the phrasing of the Preamble.

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How did the Preamble as we know it today come into existence? And why did the court refuse to consider the challenges to how it is phrased?

History of the original Preamble

The preamble of the Constitution serves as a statement clarifying the guiding principles and purpose behind the Constitution of India. When the Constitution first came into force on January 26, 1950, the Preamble stated:

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN DEMOCRATIC REPUBLIC and to secure to all its citizens:

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity;

and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

The phrasing of the Preamble can be traced back to the first week of the Constituent Assembly debates on December 13, 1946. On this date, Prime Minister Jawaharlal Nehru introduced the Objectives Resolution — a unanimously adopted 8-point "pledge" that provided the guiding principles for the drafting of the Constitution. Among other things, it declared the intent of the Constituent Assembly to proclaim India as an "Independent Sovereign Republic" and guaranteed equality before the law and safeguards for minorities.

During the debates, early attempts were made to introduce the concept of socialism into the Preamble of the Constitution. In October 1949, Constituent Assembly member Hasrat Mohani moved an amendment for the Preamble to instead begin with "We, The People of India, having solemnly resolved to constitute India into a Union of Indian Socialistic Republics to be called U. I. S.R. on the lines of U. S. S. R.". However, this amendment was negatived and the Preamble as we know it was adopted later that day.

These attempts were not confined to the Preamble. Earlier, in November 1948, Constituent Assembly member Professor K T Shah moved an amendment to Article 1(1) of the Constitution. Shah suggested that what is now "India, that is Bharat, shall be a Union of States", should instead say "India, that is Bharat, shall be a Secular, Federalist, Socialist Union of States". The motion was eventually negatived, but not before Assembly member H V Kamath also noted that the words secular and socialist "should find a place, if at all, only in the Preamble".

'Socialist' and 'secular' introduced

In the midst of the Emergency while the Indira Gandhi government was curbing civil liberties and jailing political opponents, Parliament enacted the 42nd Amendment. Often referred to as a 'mini-constitution' because of the sheer number of changes introduced, the 42nd Amendment greatly expanded the powers of the Centre.

Among a host of measures, it sought to immunise future amendments to the Constitution from being challenged in court by amending Article 368 (on the power and procedure to amend the Constitution) so long as the policies were implemented to give effect to any of the broad principles in Part IV of the the Constitution (Article 36-51).

The Preamble was not spared from these sweeping changes. The Amendment stated "for the words "SOVEREIGN DEMOCRATIC REPUBLIC" the words "SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC" shall be substituted". This change was meant to "spell out expressly the high ideals of socialism, secularism and the integrity of the nation".

The Supreme Court struck down the aforementioned vast powers given to the Centre and Parliament in the case of Minerva Mills v. Union of India (1980), and the 43rd & 44th amendments further reversed several amendments. However, the amendment to the text of the Preamble remained, only to be challenged 44 years later in 2020.

The challenge to the Preamble

In July 2020, a Supreme Court advocate by the name of Dr. Balram Singh filed a petition challenging the inclusion of the words 'socialist' and 'secular' in the Preamble of the Constitution. Later, former Law Minister Subramaniam Swamy and advocate Ashwini Kumar Upadhyay also filed petitions with similar challenges. They argued that the word 'secular' was deliberately excluded from the Constitution by its framers and that the word 'socialist' tied the Centre's hands when creating economic policies.

However, the court in a short 7-page order rejected these arguments, with Justices Sanjiv Khanna and P V Sanjay Kumar noting that "the flaws and weaknesses in the arguments are obvious and manifest."

When the Constitution was being drafted, the court noted that the meaning of the word secular was "considered imprecise" as some scholars had interpreted secularism as being opposed to religion. With time though, the court held that "India has developed its own interpretation of secularism, wherein the State neither supports any religion nor penalises the profession and practice of any faith". The ideals espoused in the Preamble — fraternity, equality, individual dignity and liberty among others — "reflect this secular ethos", the court held.

Similarly, the court held that the word 'socialism' has also evolved to have a unique meaning in India. It held that socialism refers to "(the) principle of economic and social justice, wherein the State ensures that no citizen is disadvantaged due to economic or social circumstances" and does not necessitate restrictions on the private sector which has "flourished, expanded, and grown over the years, contributing significantly to the upliftment of marginalized and underprivileged sections in different ways".

The court also found that "The additions to the Preamble have not restricted or impeded legislations or policies pursued by elected governments, provided such actions did not infringe upon fundamental and constitutional rights or the basic structure of the Constitution" and held that there was no justification for challenging the 42nd amendment nearly 44 years after its enactment.

Why is it important?

The initial years after Independence fostered 'democratic socialism' characterised by centralised planning and many industries being established by the state. The period of 1960s and 70s saw

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nationalisation of banks and insurance, higher tax rates and various regulations. The economy, though declared as mixed economy where public and private enterprises would co-exist, displayed the characteristics of classical socialism with license controls and regulations. Starting from 1991, our economy has evolved from such socialistic pattern to a market-oriented model. The ensuing growth has uplifted vast majority of people from abject poverty in the last three decades. However, there is also growing inequality that needs to be addressed. As the court observed, our socialism continues to address the needs of the poor through schemes such as MGNREGA, subsidised food grains, direct benefit transfers for women and farmers etc. Hence, it is imperative that such socialism continues to guide the actions of the state for the welfare of the needy while private enterprise flourishes resulting in increased employment and strong economic growth. The spirit of our 'unity in diversity' should be equally preserved by upholding the values of secularism.

TIMELY REITERATION

The Supreme Court of India has done well to rebuff an attempt to question the characterisation of the country as 'secular' and 'socialist' in the amended Preamble to the Constitution. Sections of the right wing have been uneasy for long about the identification of secularism as one of the attributes of India. This opposition has acquired traction among those who see the combination of the state not favouring or opposing any religion and the constitutional protection for minorities as something that renders the polity "pseudo-secular". The original assumption of the makers of the Constitution was that the Constitution — with its emphasis on equality before law and equal treatment of all sections, besides the incorporation of the right to profess, practise and propagate any religion and freedom of belief and conscience in the fundamental rights chapter — is inherently secular. In terms of economic policy, Dr. B.R. Ambedkar opposed amendments to include the word 'socialist' by arguing that the Constituent Assembly should not tie down future generations to any particular form of economy. Therefore, the words did not form part of the Preamble adopted along with the Constitution in 1949, but were controversially added through the 42nd Amendment enacted during the Emergency. However, that may not be reason enough for the courts to strike down their inclusion based on writ petitions filed in 2020, about 44 years after the amendment.

THE CONSTITUTION HAS ALWAYS BEEN SECULAR BOTH IN SPIRIT AND IN LETTER

In light of the Supreme Court judgement affirming secularism and socialism in the Preamble of the Constitution, here is an Op-Ed piece published in The Hindu in 2016 that dealt with the role of secularism throughout the history of the Constitution and the Constituent Assembly.

On November 26, Constitution Day, Union Home Minister Rajnath Singh bemoaned in Parliament that secularism was the "most misused" term in the country. "The framers of the Constitution did not include the words 'secular' and 'socialist' because these values were (already) part of Indian civilisation," said Mr. Singh. He was essentially voicing a belief that secularism was alien to the Constitution, and that it was only during the Emergency that secularism stealthily crept into the Constitution. That belief, though popular, is not quite right.

The framers of the Constitution worked against the backdrop of two great instances of human carnage — World War II and the Partition of India. Both were the result of an insistence on distinctiveness of group identities and their consequent territorial demarcations, which excluded those who did not fall within the dominant group. Simultaneously, the process of integration of

princely states meant that people not exposed to even limited democracy became voters of a republic that promised justice, liberty, equality and fraternity for all.

In a nascent republic, where power had for the first time been vested in the diverse, heterogenous people of the subcontinent, the Constituent Assembly became a trustee and demarcator of the extent of that power. The document that they produced after two years of intense debate and labour had words of comfort for everyone.

A constitutional value

Secularism is implicit in the entire constitutional framework. What does secularism in the Indian Constitution mean? The question admits of no easy answer and cannot be restricted to textual interpretation alone. It is a constitutional value that seeks to manage India's diverse and plural society, in an atmosphere of cohesiveness of national purpose.

The guarantee of equality in Article 14; the promise of non-discrimination in Articles 15 and 16; protection from religious taxes and religious instruction in state-funded institutions set in Articles 27 and 28; the permission of educational institutions of choice to linguistic and religious minorities in Articles 29 and 30; the promise of equal ballots devoid of sectional preferences in Article 325 — all make for a constitutional architecture which is devoid of any religious preference whatsoever. God is significantly absent throughout the Constitution.

There are however provisions which seek to enforce equality within the Hindu religion in Articles 17 and 25(2)(b). Deference to Hindu sentiments on cow slaughter is also provided for in Article 48, as is the pious hope for a uniform civil code in Article 44. Taken as a whole package, the constitutional vision of secularism is one of principled equidistance from all religious matters, while at the same time regulating its practice in a manner consistent with the demands of a modern society. Crucially, in Article 25(2)(a), we can find constitutional permission for the state to regulate or restrict "any economic, financial, political or other secular activity which may be associated with religious practice".

Debate over amendment

Thus, it is fallacious to argue that the original Constitution as adopted, enacted and given to ourselves on November 26, 1949, was not a secular document. The inclusion in the Preamble of the words "socialist" and "secular" by the 42nd Amendment on January 3, 1977, only headlined what was already present in the original text of the Constitution. We must also remember that the Preamble itself was drafted only after the Constitution was approved by the Constituent Assembly. The Preamble thus became a one-page mission statement of the republic's intent.

In fact, there is an illuminating discussion in the Constituent Assembly debates of November 15, 1949, when Professor K.T. Shah wanted to include the words "secular, federal, socialist" in Article 1 of the Constitution, the article that now reads, "India, that is Bharat, shall be a Union of States..."

Prof. Shah said, "As regards the secular character of the state, we have been told time and again from every platform that ours is a secular state. If that is true, if that holds good, I do not see why the term could not be added or inserted in the Constitution itself, once again, to guard against any possibility of misunderstanding or misapprehension... The secularity of the state must be stressed in view not only of the unhappy experiences we had last year and in the years before and the excesses to which, in the name of religion, communalism or sectarianism can go, but I intend also

to emphasise by this description the character and nature of the state which we are constituting today...."

Dr. B.R. Ambedkar, in reply, said, "Mr. Vice-President, Sir, I regret that I cannot accept the amendment of Prof. K.T. Shah. My objections, stated briefly, are two. In the first place the Constitution, as I stated in my opening speech in support of the motion I made before the House, is merely a mechanism for the purpose of regulating the work of the various organs of the state. It is not a mechanism whereby particular members or particular parties are installed in office. What should be the policy of the state, how the society should be organised in its social and economic side, are matters which must be decided by the people themselves according to time and circumstances. It cannot be laid down in the Constitution itself, because that is destroying democracy altogether. If you state in the Constitution that the social organisation of the state shall take a particular form, you are, in my judgment, taking away the liberty of the people to decide what should be the social organisation in which they wish to live. It is perfectly possible today for the majority people to hold that the socialist organisation of society is better than the capitalist organisation of society. But it would be perfectly possible for thinking people to devise some other form of social organisation which might be better than the socialist organisation of today or of tomorrow. I do not see therefore why the Constitution should tie down the people to live in a particular form and not leave it to the people to decide it for themselves. This is one reason why the amendment should be opposed. The second reason is that the amendment is purely superfluous. My honourable friend, Professor Shah, does not seem to have taken into account the fact that apart from the Fundamental Rights, which we have embodied in the Constitution, we have also introduced other sections which deal with Directive Principles of State Policy... What I would like to ask Professor Shah is this: If these directive principles to which I have drawn attention are not socialistic in their direction and in their content, I fail to understand what more socialism can be. Therefore my submission is that these socialist principles are already embodied in our Constitution and it is unnecessary to accept this amendment."

Prof. Shah's amendment was defeated but two things stand out in this exchange. First, the economist in Dr. Ambedkar dominated his exchange with Prof. Shah. He only discussed the economic philosophy of the Constitution and did not deal with the questions of secularism and federalism. Second, he felt that what was already explicit in the Constitution need not be reiterated.

Basic structure

On April 24, 1973, the Supreme Court, with its then full strength of 13 judges, ruled in the Kesavananda Bharati case that secularism was part of the basic structure of the Constitution. It also held that elements constituting the basic structure were beyond Parliament's power to amend the Constitution. The court reiterated this principle in 1994 in the S.R. Bommai case when dealing with the challenge to the dismissal of four Bharatiya Janata Party-ruled State governments after the demolition of the Babri Masjid.

Despite the Constitution's secular nature being held to be part of its basic structure, matters did not rest. During the Emergency came the 42nd Amendment on January 3, 1977. Apart from many significant changes otherwise, it resurrected Prof. Shah's cosmetic suggestion and inserted the word "secular" in the Preamble. After the Emergency, the 44th Amendment by the Janata government undid most of the substantial damage achieved by the 42nd Amendment. But it, too, chose to preserve the addition of the words "socialist" and "secular" to the Preamble.

The Law Minister who piloted the 44th Amendment was Shanti Bhushan. His colleagues in the ministry were L.K. Advani and A.B. Vajpayee. Their inheritors today cannot presume to forget constitutional history, and assume that constitutional values such as secularism are just meaningless words to be redacted from a document. Secularism is inherent in the basic structure of the national book, and is beyond the power of any transient parliamentary majority to efface or abridge.

EXPLAINED: STORIES OF WOMEN WHO HELPED DRAFT THE CONSTITUTION OF INDIA

On Constitution Day (November 26), President Droupadi Murmu recalled the role of women members in the Constituent Assembly of India, the body tasked with formulating the Constitution of independent India.

The 299-member body had 15 women members (of whom two later resigned), including prominent figures such as Sarojini Naidu, Sucheta Kripalani, and Vijaya Lakshmi Pandit. But it also had lesser-known women from different parts of the country, who participated in debates on gender, caste and reservations. We recall five of them.

01 Ammu Swaminathan (1894-1978)

In the book The Fifteen: The Lives and Times of the Women in India's Constituent Assembly, authors Angellica Aribam and Akash Satyawali wrote that Swaminathan hailed from Palakkad, Kerala. She married the much older Subbarama Swaminathan in her teens. However, she also presented a few "conditions" before doing so, such as not being asked "what time she would reach home".

Among her four children was Captain Lakshmi Sahgal, who joined the Indian National Army.

Swaminathan became interested in politics and strongly opposed the rules imposed on widows, such as shaving the head and renouncing jewellery, after seeing her mother deal with those restrictions. She also contested elections on a Congress ticket from Madras. In the Constituent Assembly, she spoke about the Hindu Code Bill and gender equality, even though "When she mentioned that the Bill affects the women of the country more than the men, the male-dominant House erupted into laughter," the book said.

Post-independence, she was elected from Dindigul in Tamil Nadu and served as India's goodwill ambassador to countries like Russia, China and the US.

02 Annie Mascarene (1902-1963)

Mascarene was born in Travancore (now Thiruvananthapuram) in a Latin Christian family, considered to be at the lowest rung of the caste system. Her academic brilliance led her to study and teach law. The Travancore royals also ushered in some reforms against caste restrictions and for women's education in that period.

The political upheaval in Travancore led her towards activism. Voting rights in the legislature were limited, excluding lower-caste Ezhavas, Christians and Muslims. The groups together formed the All Travancore Joint Political Congress, which she joined. Mascarene also became a part of the Travancore State Congress, advocating for a government based on universal adult franchise. Her house was pelted with stones by her opponents and intruders assaulted her in her home, but she persisted in her work.

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She later joined the Congress. As part of the Constituent Assembly, she spoke about the need for a strong Centre in the early days of the republic, while simultaneously emphasising the autonomy of local governments. Amid factionalism in the state, she resigned from the Congress and contested as an independent candidate in 1952, winning from Thiruvananthapuram.

03 Begum Qudsia Aizaz Rasul (1909-2001)

Qudsia's father was an accomplished politician, with roots in the royal family of Malerkota in Punjab. Her privileged background led her to a path of formal education few girls could follow at the time. But even then there were objections, with an ulema issuing a fatwa against her convent schooling.

After her marriage to Nawab Aizaz Rasul, she decided to discard the purdah, a decision her husband came around to only later. Both of them decided to join politics and contest elections in 1936. While conservative groups criticised her candidature, she eventually emerged victorious from a non-reserved seat.

Qudsia joined the Muslim League, campaigning for causes linked to women. She was also among the few members opposing separate electorates based on religion. However, her views on the idea of Pakistan were more complex. On one hand, she believed the move would help uplift Muslims, but she also held concerns about the plight of poor Muslims in India following such a division. Ultimately, she and her husband decided to stay in India.

She then joined the Congress. Post-independence she was elected to the Rajya Sabha from Uttar Pradesh in 1952 and later helped promote women's hockey.

04 Dakshayani Velayudhan (1912-1978)

Velayudhan marked several firsts – she was the first Dalit woman to graduate in science in Cochin (now Kochi) and the first Dalit woman in the Cochin Legislative Council.

Belonging to the Pulaya community, considered a "slave", assertions were being made against oppressive caste-based rules around the time of her birth. She once recalled how her decision to go to college led to a "commotion", as people attempted to catch a glimpse of her. But she continued facing discrimination, as upper-caste teachers refused to show her practical experiments.

After working as a teacher, she married a social worker at the Sevagram Ashram in Wardha. "The wedding was officiated by a leprosy-afflicted person in the presence of [Mahatma] Gandhi and Kasturba", the book said. Dakshayani later filed her nomination for the Cochin Legislative Council. In 1946, she was elected to the Constituent Assembly from Malabar at the age of 34. Here, she disagreed with Ambedkar on the need for separate electorates, saying the provision highlighted differences and was against nationalism. She added, "He (Ambedkar) is the only leader of the Harijan community and his non-co-operation with the nationalist forces is a great tragedy…"

Unlike many of her peers, she could not continue a career in politics due to financial difficulties. She only returned in 1971, but came fourth in the Lok Sabha elections as an independent candidate. Her withdrawal from politics nonetheless saw her actively participate in the Dalit movement.

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05 Renuka Ray (1904-1997)

Ray was born in Pabna, present-day Bangladesh, in an illustrious family. Her father qualified for the prestigious Indian Civil Services, while her mother was one of the first two women students at Calcutta's Presidency College in 1897.

A meeting with Gandhi in 1920 led her to quit college and join the freedom struggle, where she went door-to-door to raise awareness. She briefly stayed in the Sabarmati ashram, before studying at the London School of Economics and Political Science. In London, she met another student named Satyendra Nath Ray, who she later married.

After returning to India, she was engaged in activism for women's issues, such as the rights to divorce and inheritance. Ray also represented women's organisations in the Central Legislative Assembly in 1943. In 1946, she was elected to the Constituent Assembly and discussed issues like the Hindu Code Bill and opposed women's reservation in legislatures, saying it would be "an impediment to our growth and an insult to our very intelligence and capacity".

Ray lost the 1952 general election from Hooghly but won in 1957, and worked with the Bengal government in the interim. Subsequently, she returned to social work.

WHAT IS THE CONTROVERSY AROUND THE SAMBHAL MOSQUE?

The story so far

A petition was filed by Hari Shanker Jain and others in the court of the civil judge of the district and sessions court, Sambhal on November 19. The petitioners alleged that the 16th Century Jama Masjid in Sambhal was built at the site of an ancient Hari Har Mandir. The claim was similar to those made in the case of Gyanvapi mosque in Varanasi and Eidgah Masjid Mathura in Uttar Pradesh and Kamal-Maula Masjid in Dhar in Madhya Pradesh. Mr. Jain is the petitioner in the Varanasi, Mathura and Dhar cases too. The Sambhal mosque is a protected national monument.

How were the surveys carried out?

After a hearing on the same day, the civil judge ordered a photographic and videographic survey of the mosque and asked for its report to be presented before it on November 29. The mosque's intezamia committee was not consulted by the court. Following the order, a survey was carried out peacefully in the presence of the Superintendent of Police, members of the mosque committee and Sambhal's district magistrate.

However, a second survey carried out on November 24 led to large scale violence. Conducted in the morning, the survey team was preceded by a local mahant (priest), one of the petitioners, and followed by some members chanting Jai Shri Ram slogans. A police party accompanied the surveyors. A large number of protestors gathered near the mosque. It soon resulted in stone pelting from the crowd. The police allegedly resorted to opening fire in which five men, including two teenagers, died. The police denied the allegation, arguing it used lathi-charge to control the crowd. The local MLA rubbished the police claims, arguing the dead included unarmed persons who had gone out for their daily chores. The residents alleged the police ransacked their homes.

What is the mosque's history?

Unlike Ayodhya or Varanasi, the Sambhal dispute cropped up only this year. For centuries, people of different communities have lived peacefully here. The Jama Masjid in Sambhal is one of the

three mosques built by Mughal Emperor Babur during his reign between 1526 and 1530; the other two being the mosque in Panipat and the Babri Masjid in Ayodhya which was demolished in 1992. The Sambhal mosque was built by Babur's general Mir Hindu Beg around 1528. While most historians attribute this mosque to Babur's general Hindu Beg, some believe the mosque is actually a Tughlaq-era monument.

The Hindu tradition, however, holds that the mosque incorporates parts of an ancient Vishnu temple. They believe the tenth avatar of Vishnu, Kalki, will descend in Sambhal.

PLEA CLAIMS SHIVA TEMPLE AT AJMER DARGAH, SEEKS SURVEY; COURT NOTICES TO CENTRE, ASI

Even as Sambhal district in Uttar Pradesh remains on edge following a court-ordered survey of the Shahi Jama Masjid there, a local court in Rajasthan's Ajmer on Wednesday issued notices to the Union Ministry of Minority Affairs, the Archaeological Survey of India, and the Ajmer Dargah Committee over a petition seeking a survey of the renowned Ajmer Sharif Dargah.

• The petition was filed by Hindu Sena chief Vishnu Gupta who, claimed that there was a temple at Ajmer Sharif Dargah like "in Kashi and Mathura".

• Civil Judge Manmohan Chandel issued notices after Gupta claimed in his petition that the dargah — the mausoleum of Sufi saint Khwaja Moinuddin Chishti – was a Shiva temple. The court order has not been uploaded online or shared with the petitioners so far.

Do You Know:

• The Places of Worship Act, 1991, was a legislative attempt to strengthen the preambular goal of secularism, recognising that the rich cultural history of India carries with it centuries-old narratives and experiences of violence between communities who at that time had no shared aspiration for a common nation.

• The Parliament of the time, conscious of the potential harm to the body politic which could arise from repeatedly reopening centuries-old wounds, chose in its wisdom to acknowledge that August 15, 1947, was a watershed moment. It was from that day onwards that various communities came together to primarily pledge their allegiance to the idea of India as a nation-state while continuing to practice their religion and faith with the protection of the law. The Act draws an imaginary line, to ensure that any section of the Indian population of today is not punished or subjected to humiliation and violence on the pretext of actions of people from their religion centuries ago.

• Moinuddin Hasan Chishti (1141–1236 CE), also known as Khwaja Gharib Nawaz, was a revered Sufi saint and the founder of the Chishti Order in the Indian subcontinent. His teachings emphasized love, tolerance, and service to humanity, making him one of the most influential spiritual figures in South Asia. His final resting place is the Ajmer Sharif Dargah in Ajmer, Rajasthan, which is one of the most visited pilgrimage sites in South Asia.

—The Urs festival, commemorating his death anniversary, attracts devotees from across the globe.

—Moinuddin Chishti's work laid the foundation for Sufi traditions in India, which became integral to the region's spiritual and cultural fabric. His emphasis on compassion and harmony continues to inspire millions today.

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CONVERSION TO GET JOB AMOUNTS TO A FRAUD ON CONSTITUTION: SC

Religious conversion merely to avail quota benefits without "actual belief" in the other religion would defeat the social ethos of the policy of reservation, the Supreme Court ruled Tuesday as it upheld a Madras High Court order denying Scheduled Caste certificate to a born Christian woman who claimed to be a Hindu while seeking the certificate for an Upper Division Clerk job in Puducherry.

• A bench of Justices Pankaj Mithal and R Mahadevan said that "in the instant case, the evidence presented clearly demonstrates that the appellant professes Christianity and actively practises the faith by attending church regularly".

• A larger question on the constitutionality of using religion as a yardstick for Scheduled Caste quota is pending before the Supreme Court.

• The pleas essentially seek reservation for Dalit converts to Christianity and Islam. The 1950 Constitution (Scheduled Castes) Order issued by the President mandates SC status only for Hindus. For the purposes of reservation, Sikhs and Buddhists are also considered Hindus.

• In 2007, Justice Ranganath Mishra Commission report on Religious and Linguistic Minorities, had recommended Scheduled Caste quota for Dalit Christians and Muslims.

• Writing for the bench on Tuesday, Justice Mahadevan said, "India is a secular country. Every citizen has a right to practise and profess a religion of their choice as guaranteed under Article 25 of the Constitution.

—One converts to a different religion, when he/she is genuinely inspired by its principles, tenets and spiritual thoughts. However, if the purpose of conversion is largely to derive the benefits of reservation but not with any actual belief in the other religion, the same cannot be permitted, as the extension of benefits of reservation to people with such ulterior motives will only defeat the social ethos of the policy of reservation."

• The court said that "the field verification clearly revealed the registration of the marriage of the parents of the appellant under the Indian Christian Marriage Act, 1872, the baptism of the appellant and her brother and also the fact that they had been regularly attending the church... There is nothing on record to show that she or her family has reconverted to Hinduism and on the contrary, there is a factual finding that the appellant still professes Christianity".

Do You Know:

• Article 25(1) of the Constitution guarantees the "freedom of conscience and the right freely to profess, practise and propagate religion". It is a right that guarantees a negative liberty — which means that the state shall ensure that there is no interference or obstacle to exercise this freedom. However, like all fundamental rights, the state can restrict the right for grounds of public order, decency, morality, health and other state interests.

—Over the years, the Supreme Court has evolved a practical test of sorts to determine what religious practices can be constitutionally protected and what can be ignored. In 1954, the Supreme Court held in the Shirur Mutt case that the term "religion" will cover all rituals and practices "integral" to a religion. The test to determine what is integral is termed the "essential religious practices" test.

THE REAL GORAKHPANTHI

Three Muslim men from Atarsanwa village were arrested for allegedly impersonating Gorakhpanthi jogis (ascetics) by wearing saffron robes and performing bhajans. They claimed this was their ancestral vocation, but local villagers, led by a BJP leader, contested their authenticity, asserting that the Gorakhpanthi sect is exclusively Sanatani (Hindu).

• Founded by Guru Gorakhnath, the sect has historically embraced followers across caste, religion, and gender lines. Guru Gorakhnath, a disciple of Matsyendranath, integrated elements from Tantric Shaivism and Buddhism, fostering an inclusive spiritual tradition.

• Under Matsyendranath and later Gorakhnath, the tradition bridged Tantric Shaivite rituals and Tantra-inspired Buddhism, leading to the formation of the Nath Siddha tradition. This tradition emphasized rationalism and defied societal divisions.

• Over time, some Hindu disciples incorporated Hindu gods and goddesses into the sect's practices, which traditionally worshipped Adi Nath (a form of Shiva). This led to some lower-caste Gorakhpanthis converting to Islam while continuing to identify as Nathpanthi jogis.

• During the British colonial period, the Gorakhpanthi jogis were often misrepresented as degenerate and dangerous, which contrasted with the sect's original inclusive and rationalist principles.

• The poet Kabir criticized the sect's deviation from its original principles, particularly the adoption of violent and aggressive behaviours, urging a return to true asceticism.

Do You Know:

• Gorakhpur takes its name from Gorakhnath, who was a saint of the 'Nath Sampradaya'. A shrine called Gorakhnath Mandir was built in his honour at the location where he did his Sādhanā.

• The Gorakhpur region comprises the districts of Maharajganj, Kushinagar, Deoria, Azamgarh, Mau, Ballia and parts of Nepal Terai. These areas, which may be called the Gorakhpur Janapad, were an important centre of the Hindu culture. Gorakhpur was a part of the kingdom of Magadha, one of the sixteen Mahajanapadas in the 6th century BCE.

WIKIPEDIA AND ANI'S DEFAMATION SUIT

The story so far:

Earlier this year, Indian news agency Asian News International (ANI) filed a defamation suit against Wikimedia Foundation Inc. and three Wikipedia 'administrators' before the Delhi High Court. A single-judge Bench subsequently directed Wikimedia on August 20 to disclose the administrators' details.

What is Wikipedia?

Wikipedia is a community-driven encyclopaedia freely available on the Internet. Volunteers from around the world work together to populate and maintain it.

While not all pages on Wikipedia are of equal quality, it has acquired a reputation of being reliable because its editors include field experts and the platform allows anyone to communicate their knowledge freely as long as they abide by the guidelines.

How is Wikipedia populated?

Following the single-judge Bench's direction to reveal the identities of the three 'administrators', Wikimedia, which hosts Wikipedia, filed an appeal before the Division Bench. Through a consent order, the court directed Wikimedia to submit the subscriber information of these individuals in sealed covers.

According to the suit filed by ANI, some of the statements on its Wikipedia page are defamatory. For example: "The news agency has been criticised for having served as a propaganda tool for the incumbent central government, distributing materials from a vast network of fake news websites, and misreporting events". According to ANI, the defendants "have collectively tarnished the reputation of the plaintiff by publishing false, misleading and defamatory content on the ANI page, and discredit the plaintiffs impeccable professional standing."

When editors associated with ANI attempted to edit the allegedly defamatory statements, other (independent) editors reversed or modified them. ANI has contended that Wikimedia, through the 'administrators', has "actively participated in removing any edits that sought to reverse the false and misleading content framed against the Plaintiffs".

Wikipedia later changed the page's status to 'extended confirmed protection', which prevented ANI-associated editors from further changing those statements. ANI has alleged that this implies Wikimedia violated the obligations of an intermediary under the safe-harbour provisions of the Information Technology Act 2000 and the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021.

Will Wikimedia lose safe-harbour protection?

Wikimedia Foundation Inc., a non-profit organisation based in the U.S. that's been impleaded as the first defendant, does not play a role in determining the contents on Wikipedia. Its role is limited to providing the technical infrastructure to run the platform and ensure editors don't face technical hurdles as they create new pages, all while abiding by guidelines developed by the community.

These guidelines specifically remind editors Wikipedia is an encyclopaedia and that therefore all statements on any page need to be backed by reliable, verifiable sources. Most of the allegedly defamatory statements on ANI's Wikipedia page also have references to reliable sources. Original research is not allowed on Wikipedia and editors continuously remove previously unpublished arguments, ideas or analyses.

Second, pages on controversial topics are often extensively edited for propriety. Any member of the Wikipedia community can ask for a page's status to be protected, and the editors may subsequently place the page in a state of 'extended confirmed protection' or 'full protection'. Once a page is placed in 'extended confirmed protection', only editors whose accounts have the 'Extended Confirmed Users' badge can edit it. For pages under full protection, only 'administrators' can make changes.

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Wikimedia plays no role in the selection of 'Extended Confirmed Users' or 'administrators'. Any editor who has a sufficiently long-standing account and a minimum number of edits to their name can apply to become an administrator, and community members elect them.

Finally, Wikimedia is not involved in these elections.

What effect will loss of safe-harbour status have?

In sum, Wikipedia has acquired its reputation for reliability through its democratic architecture, its support for editors to anonymously edit articles without fear of retaliation or consequences, and by enforcing a policy of desisting from generating first-hand knowledge.

Any intervention from the judiciary or legislature to force the disclosure of editor information — including those designated with administrator status — is bound to hamper the platform's reputation. Future editors may not be able to operate in confidence: they could be moved by the threat of reprisals from affected particles and/or uncertainty over how Indian courts might interpret the particulars of Wikipedia's setup.

EVMS BLAMED ONLY WHEN YOU LOSE: SC REJECTS PLEA FOR RETURN OF BALLOT PAPERS

The Supreme Court Tuesday dismissed a PIL which sought re-introduction of ballot papers in place of Electronic Voting Machines (EVMs) remarking that the machines are blamed only when one loses an election.

• The Supreme Court of India has consistently upheld the use of Electronic Voting Machines (EVMs) in elections, rejecting multiple pleas to revert to ballot papers. In April 2024, the Court dismissed petitions seeking a return to ballot papers and 100% verification of Voter Verifiable Paper Audit Trail (VVPAT) slips, emphasizing the sanctity of the electoral process and the extensive measures in place to ensure the integrity of EVMs.

—"What happens is, if you win the elections, EVMs are not tampered with. When you lose elections, EVMs are tampered (with). When Chandrababu Naidu lost, he said EVMs can be tampered. Now, this time, Jagan Mohan Reddy lost, he said EVMs can be tampered," said Justice Vikram Nath presiding over a two-judge bench while dismissing the PIL by evangelist K A Paul.

• The Election Commission of India (ECI) has provided detailed explanations on the functioning and security of EVMs, noting that manufacturers are unaware of the allocation of buttons to political parties, thereby preventing tampering.

• In two separate but concurring judgements, a bench of Justices Sanjiv Khanna and Dipankar Datta, which "conducted an in-detail review of the administrative and technical safeguards of the EVM mechanism", said "to us, it is apparent that a number of safeguards and protocols with stringent checks have been put in place". The court said that "data and figures" placed before it "do not indicate artifice and deceit".

• Rejecting the prayer for a return to ballot papers as "unsound", Justice Khanna had that would undo electoral reforms. "EVMs offer significant advantages," he said. "They have effectively eliminated booth capturing by restricting the rate of vote casting to 4 votes per minute, thereby prolonging the time needed and thus check insertion of bogus votes. EVMs have eliminated invalid votes… reduce paper usage… expediting the counting process and minimising errors."

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Do You Know:

• According to ECI Website, EVM stands for Electronic Voting Machine.

—It is a device used to electronically record and count votes cast in elections.

—The Indian Electronic Voting Machine (EVM) system is also termed as ECI-EVM , meaning an EVM specifically designed, manufactured and used for Elections as per election procedure and rules framed by Election Commission of India and documented in manual on EVM , so as to differentiate it from EVMs used in other countries.

—ECI – EVM consists of Ballot Unit (BU), Control Unit (CU) and the later added Voter Verifiable Paper Audit Trail (VVPAT).

—EVMs come under the overall category of DRE voting machines, or Direct Recording Electronic voting machine systems, which is one of the many voting methodologies available worldwide.

—ECI-EVMs are considered more efficient and accurate than paper ballots, as they eliminate the possibility of invalid votes due to unclear or improperly marked (stamped) paper ballots, reduce the time required for counting and ensure that a vote is registered for a single candidate only.

• In the Paper Ballot system, the list of contesting candidates is printed on a paper (ballot paper) along with serial number, name and symbol of the candidates.

—There is a specific space allocated for each contesting candidate where a vote can be cast by voter by putting a mark. Thereafter, voter needs to fold the ballot paper in a specified manner and to deposit in the Ballot Box.

—For Counting votes obtained by that candidate, only correctly marked votes are counted.

Some of the major issues with ballot paper voting are that

—Many votes become invalid due to improper marking/ink smudging

—Ballot boxes are also susceptible to "stuffing with spurious votes" by capturing the booth for few minutes.

—Voting with pre-marked ballot papers.

—Manual counting of votes is prone to errors and mischief and takes a lot of days.

—In the ECI-EVM system of voting, the Control Unit is placed with the Presiding Officer (In-Charge CU) and the Ballot Unit(s) and VVPAT are placed inside the Voting Compartment.

—Instead of issuing a ballot paper, the Polling Officer in-charge of the Control Unit releases the electronic Ballot by pressing the "Ballot Button" on the Control Unit. This enables the voter to cast his/her vote by pressing the "blue button" (Candidate button) on the Ballot Unit against the candidate of his/her choice.

—When the voter presses a button against the candidate of his/her choice on Ballot Unit, a red LED glows against the chosen candidate's button on BU. A paper slip showing the serial number, name and the symbol of the candidate of his/her choice is generated and is visible for about 7 seconds through transparent window of VVPAT.

Hence the voter is able to see the "printed slip" and verify that vote is cast as per his/her choice. Thereafter, the printed paper slip gets cut automatically and stored in sealed Drop Box of VVPAT. A loud BEEP is heard from the Control Unit which confirms that the vote is registered successfully. The signal flow at the time of voting between BU, CU &VVPAT is shown. •

• The VVPAT paper slips can be later used for verifying the electronic count obtained from CU in case of a dispute. This record of VVPAT printed paper slips verified by voter and the process of correlating VVPAT and CU count as per established mandatory verification procedure makes the voting on EVMs trustworthy Hence it can be seen that no technical knowledge is required for casting a Vote on the EVM and ordinary citizens can easily cast their votes on ECI EVMs.

ELECTION COMMISSION OF INDIA IS ONE OF THE GREATEST GIFTS OF THE CONSTITUTION

November 26 marks a very important milestone in independent India's history. On this day in 1949, after the Constituent Assembly members worked hard for two years, eleven months and seventeen days, India adopted its Constitution. The zeal with which they participated in materialising this idea of India is reflected in the fact that they proposed as many as 7,635 amendments to the draft. Finally, the founding fathers of the Constitution gave the nation its sacred book, comprising 395 articles and eight schedules.

For the Constituent Assembly (CA), if a democratic country was the goal, free and fair elections were its means. Not many know that 16 articles of the Constitution were enacted exactly two months before the Constitution became fully operational. These included Article 324, which laid the foundation for the establishment of the Election Commission that was mandated with "superintendence, direction and control" of all elections. Interestingly, the Election Commission of India (ECI) was established on January 25, 1950 — one day before India was born as a sovereign democratic republic.

During proceedings of the Assembly, the Sub-Committee on Fundamental Rights recognised the independence of and non-interference by the executive and legislature in elections a fundamental right. Most significantly, the Constitution, through Article 329, debarred even the judiciary from interfering in the election process to ensure uninterrupted elections. This provision has been the envy of many election commissions.

A significant issue of discussion in the CA was whether the elections to the state legislatures should be vested in the state election commission or the central commission. In a far-sighted move and radical departure from the federal principle, the CA, put the Vidhan Sabha elections under the central Election Commission.

B R Ambedkar summed up the rationale for this bold move in the following words: "… No person who is entitled… should be excluded merely as a result of the prejudice of a local government… In order, therefore, to prevent injustice being done by provincial governments to people other than those who belong to the province racially, linguistically and culturally… the whole of the election machinery should be in the hands of a Central Election Commission."

How prophetic was he! We increasingly see in different parts of the country overt or covert attempts to exclude certain sections of citizens from electoral registration.

Indian elections have not only earned national respect but have also received accolades from across the world. US Senator Hillary Clinton went to the extent of calling it a gold standard. The New York Times described it as "the greatest show on Earth". No wonder ECI's International

Institute of Democracy and Election Management has attracted the top management of election bodies including Commissioners of over 130 countries in the last 12 years to learn from us.

However, great elections do not necessarily mean a great democracy. Many world democracy indexes have consistently described India as a flawed democracy. What is holding us back? Several factors like illiteracy, poor gender participation, corruption, attack on civil liberties, political culture, etc. This points to a need for urgent democratic and electoral reforms.

One of the great blessings of our electoral system is the supportive and protective role of the higher judiciary. The Supreme Court has repeatedly emphasised that the EC's mandate for free and fair elections is absolute: "Democracy cannot survive without free and fair elections" (Union of India versus ADR, 2003); "Free and fair elections is the basic structure of the Constitution" (PUCL versus Union of India, 2003; NOTA judgment, 2013); and "The heart of the parliamentary system is free and fair elections" (Mohinder Singh Gill versus CEC of India, 1977).

In February 2024, the apex court struck down electoral bonds as "unconstitutional and manifestly arbitrary" annulling all the legislative changes which had institutionalised and legalised crony capitalism in India. SC, which has been a guardian angel of democracy, has undone a great damage.

One important factor that makes our democracy flawed is the low participation of women in elections, both in terms of voter enrolment and voter turnout, despite the Constitution giving them equal voting rights from day one (Article 326). ECI, by its concerted efforts, has corrected the skewed gender ratio in the electoral roll. In the 2024 general elections, the gender ratio of registered voters improved to 948 women per 1,000 men, up from 928 in 2019. The gender gap in voter turnout, which used to be 10 per cent earlier, has disappeared. In 19 of 36 states, more women turned up to vote than men in 2024.

While EC has fulfilled its gender obligation rather impressively, legislative action remains far behind. While 33 to 50 per cent reservation for women in local bodies elections has been a commendable achievement, the NDA government has done well by enacting 33 per cent reservation for women in Lok Sabha and Vidhan Sabhas, to be operational from the 2029 elections.

It is noteworthy that in the 2019 elections, Mamata Banerjee created history by giving 41 per cent of tickets to women and ensuring entry of 9 out of 17 into Lok Sabha.

While several reforms have sought to improve the electoral system, many new challenges and threats have emerged, which, if not handled quickly, will derail our democracy. The use of black money and the increasing criminalisation in politics have assumed alarming proportions. In the 2024 Lok Sabha elections, the number of members with criminal cases went up to 46 per cent and crorepatis to 93 per cent. Political defections have plagued government formations in the country since the 1960s. The Anti-Defection Law, 1985, also known as the Tenth Schedule of the Constitution has proved ineffective. Horse trading is now much less of an equestrian term than a legislative jargon.

Some of the critical reforms the EC has been demanding are:

A ceiling on political parties' expenditure like that for candidates. State funding of political parties (not elections) with independent audit, and a complete ban on private donations. The establishment of an independent National Election Fund for all tax-free donations so allocation can be made based on electoral performance.

Article 324(2) expected Parliament to make a law for the procedure and service conditions of the Election Commissioners which remained unattended for over seven decades. The Act was finally passed in 2023, on SC directions, with some mixed features. A partisan collegium makes no sense. Even an iota of doubt about its neutrality is fatal for democracy. Additionally, the Act has missed out on protecting the two Election Commissioners from removal from office, so that they do not feel as if they are on probation and their elevation to CEC would be dependent on the government's pleasure.

Despite these flaws, the Election Commission of India is indeed one of the greatest gifts of the Constitution to the nation. The institution has stood the test of time and lived up to the trust of the nation as a powerful watchdog of democracy, some temporary hiccups notwithstanding. Cooperation of the executive, legislature and the judiciary is required to keep our democracy strong. Only then can the largest democracy on the planet hope to become the greatest.

NEW MAHARASHTRA, JHARKHAND ASSEMBLIES ARE OLDER, ALSO TWICE AS RICH

As the BJP-led Mahayuti in Maharashtra and the JMM-led INDIA bloc return to power in Maharashtra and Jharkhand, respectively, the new Assemblies are older and significantly wealthier. While Maharashtra has also seen an uptick in the number of MLAs facing pending criminal cases, Jharkhand has notably elected a record high number of women legislators.

Here is a look at the composition of the new 288-member and 81-member Houses in Maharashtra and Jharkhand, respectively, based on data from the Election Commission and the Association for Democratic Reforms.

Maharashtra

The incumbent Mahayuti recorded a landslide win in Maharashtra, removing any lingering doubts over the impact of its poor Lok Sabha showing in the state just months ago. In the Mahayuti, the BJP led with wins in 132 seats, followed by the Eknath Shinde-led Shiv Sena at 57 and the Ajit Pawar-led NCP at 41, with minor allies winning four more seats for an alliance total of 234. For the Opposition Maha Vikas Aghadi (MVA), the Uddhav Thackeray-led Shiv Sena (UBT) won the most seats at 20, followed by the Congress at 16 and the Sharad Pawar-led NCP(SP) at 10, with other allies winning three seats and putting the alliance total at 49.

Profile of Maharashtra Assembly Profile of Maharashtra Assembly.

With an average age of 54, the new Assembly is older than the one elected in 2019 that had an average age of 51. The average age of the Maharashtra Assembly has increased considerably in recent years – in 2009, it was 49 years. A factor contributing to this increase is the number of re-elected members – this year, 183 sitting MLAs won their elections.

While as many as 86 MLAs are 60 or older, the oldest member is the 77-year-old Chhagan Bhujbal, a Cabinet minister and senior NCP leader, elected from Yevla.

Only 10 newly elected Maharashtra MLAs are aged 35 or younger – the youngest is the Congress Tasgaon-Kavathe Mahankal MLA, 25-year-old Rohit Patil, who is the son of former Deputy CM R R Patil, now deceased.

The new House is also significantly wealthier – from average assets of Rs 22.43 crore in 2019 to Rs 43.43 crore now. The BJP MLAs are the richest, with average assets worth Rs 59.69 crore, up

from Rs 27.47 crore in 2019. The Congress MLAs' average assets grew to Rs 43.91 crore from Rs 24.46 crore in 2019. In 2019, the undivided Shiv Sena and NCP had average assets of Rs 13.74 crore and Rs 15.02 crore, respectively. Now, while the Shiv Sena and NCP are at Rs 30.62 crore and Rs 22.33 crore, the NCP(SP) is at Rs 51.31 crore and the Sena (UBT) is at Rs 10.43 crore.

The richest Maharashtra MLA is the BJP's Parag Shah, elected from Ghatkopar East, who has assets worth Rs 3,383 crore. A real estate developer and now two-time MLA, Shah has said his assets had grown by Rs 500 crore, owing to investments, over the course of the election campaign alone.

Of the 288 MLAs, 277 are crorepatis compared to 264 in the previous House. While all NCP MLAs are crorepatis, just one Shiv Sena and three BJP MLAs are not. In the MVA too, just six MLAs are not crorepatis.

The new Assembly also has more MLAs facing criminal cases, 187, compared to 176 in 2019. The BJP has the most such MLAs at 92, followed by the Shiv Sena at 38, the NCP at 20, the Sena (UBT) at 13, the Congress at nine, and the NCP(SP) at five. NCP chief and eight-time Baramati MLA Ajit Pawar faces the most pending cases at 40.

In terms of education qualifications, there are more graduates in the new House, up to 165 from 157 in the previous Assembly. Agriculture is the most common profession in the Assembly, declared by 64% of the MLAs, followed by business at 55%, and politics or social work at 27%.

After electing a record high number of women to the Assembly in 2019 at 24, the Maharashtra Assembly is seeing a marginal decline to 22. Women account for almost 8% of the House strength.

With 56 seats in the 81-member House, the JMM-led INDIA bloc returned to power with a bigger mandate than in 2019, when it had won 48 seats. The JMM won 34 seats, followed by the Congress at 16, the RJD at four and the CPI(ML)L at one. On the Opposition front, the BJP won 21 seats, with allies AJSUP, JD(U) and LJP(RV) winning one seat each. New entrant Jharkhand Loktantrik Krantikari Morcha (JKLM) won one seat.

Profile of Jharkhand Assembly Profile of Jharkhand Assembly.

With 12 women, the state has elected its highest number of women legislators. The previous high was in 2019, when 10 women MLAs were elected. Since the state was carved out of Bihar in 2000, the number of women MLAs has been rising but their share in the total Assembly membership remains low – this year they account for 15% of the House strength. The Congress has the most women legislators at five, followed by the BJP at four and the JMM at three.

In Jharkhand too, the new Assembly is older, up to 53 years from 50 in 2019, with as many as 42 MLAs getting re-elected. While there are 17 MLAs aged 60 or older, only four are under 35.

The oldest MLA is 77-year-old Rameshwar Oraon, a Cabinet minister elected from the ST-reserved Lohardaga on a Congress ticket. The youngest MLA is JLKM founder and chief Jairam "Tiger" Mahato, a 29-year-old who won his debut election from Dumri.

The new Assembly is also much wealthier, with average assets rising from Rs 3.87 crore in 2019 to Rs 6.9 crore now. The BJP MLAs are the richest on average, with assets worth Rs 7.57 crore, followed by the JMM at Rs 6.28 crore and the Congress at Rs 5.31 crore. The Congress's Rameshwar Oraon is the richest MLA, with assets worth Rs 42.2 crore.

The number of crorepati MLAs has shot up considerably, from 56 in 2019 to 71 now. Among the three major parties in the JMM, BJP and Congress, all but nine MLAs are crorepatis.

The number of MLAs facing criminal cases, though, is marginally down from 44 in 2019 to 43 this time. The BJP has the most such MLAs at 13, followed by the JMM at 12 and the Congress at eight. All of the RJD's and CPI(ML)L's MLAs are facing pending cases. Former CM and state BJP chief Babulal Marandi, elected from Dhanwar, has the most cases at 15, followed by the JLKM's Jairam Mahato at 14.

The number of graduates has increased slightly to 50 from 49 in 2019. At 70% of all MLAs, politics and social work remain the most common professions in the House, followed by business at 37% and agriculture at 31%.

COUNTER-TERROR POLICY: MHA FOR SPECIALISED UNITS IN ALL STATES/UTS

All states and Union Territories should have a uniform specialised terror unit with proper strength, they should have a prison monitoring unit, language expert unit, deradicalization unit, financial intelligence unit, all upgraded weapons recommended by NSG and a standard common training module set by the NSG.

• Earlier this month, Union Home Minister Amit Shah had said the Centre will soon bring a national counter-terrorism policy and strategy.

• Addressing the Anti-Terror Conference-2024 (ATC), organised by the NIA, which was attended by chiefs of state police forces and other top security officers, Shah said, "We are taking the next step in proactive approach that the Home Ministry has made to fight terrorism, terrorists and their ecosystem… We will soon bring a new national counter-terrorism policy and strategy in which you all will play a key role… The government has come up with a vision on a model anti-terrorism squad and model special task force for states and UTs, which, if adopted, will work as a common structure and platform to deal with the menace of terrorism."

• The ATC discussed the different structures, work distribution, orientation, hierarchy and set-up of anti-terror units in every State/UT. "The MHA, which is preparing the national counter-terrorism policy and strategy for all the States/UTs, is considering this fact that anti-terror units should be headed by an IG or a senior-rank officer, and should have at least two DIG-level officers and at least four SP-rank officers,"

Do You Know:

• Sharing the current status of the specialised terror units, a source in the security establishment said 18 States/UTs have dedicated ATS, STF, counter-terrorism units/cells; there are 13 States/UTs where ATS, STF and CT units are notified as police stations; 80 to 650 is the range of sanctioned strength in ATS, STF and CT units. There are six States/UTs which have standard operating procedures (SOPs) for their counter-terrorism investigations/operations, and only six State/UTs have designated court/courts for terrorism-related cases.

FAIR SHARE

In a speech on the occasion of National Press Day last week, Union Minister Ashwini Vaishnaw called attention to the issue of fair compensation to media companies for the use of their content by big technology platforms. The Internet's rapid growth has created a power imbalance between

news publishers and large online enterprises which now set the financial terms for their use of content created by others. Many countries are grappling with this issue, and new regulations are taking shape. In Australia and France, Google and Meta are increasingly required to negotiate fairer revenue-sharing agreements and licensing deals with publishers. A similar push in India will be an essential step to ensure the continued vibrancy and financial sustainability of news organisations, which are under threat in their traditional and online formats. The government's affirmation of support for fair revenue sharing in favour of news publishers — first expressed last year — is more important than ever. As Artificial Intelligence makes stealthy, large-scale appropriation of content easier and when new business models are built on that technological capacity, fair compensation for original creators is an urgent question. The time has come to rapidly act to give force to these pronouncements through law. The pushback that these steps will likely face from Big Tech platforms make it that much more important to start the work quickly, and with resolve.

The Minister has also expressed concern on the issue of misinformation and fake news. It is important for the government to establish trust as a good faith broker and avoid the temptation to act as a regulator or censor of content. Trust comes, for instance, by taking steps to improve the public's media literacy in general. The government's desire, now stalled by the judiciary — to act as a fact-checker — in fact, to be the final authority over what is or is not true about the Union government, is not helpful. Trust is established by empowering a strong press to pursue and verify falsehoods vigorously; and not by state regulation and censorship. The partisan application of existing rules by authorities that go after the Opposition parties on charges of misinformation while turning a blind eye towards violations by the ruling party must also stop. Only an even-handed application of laws against misinformation will act as a deterrent for bad actors. India's news industry has always suffered from fundamental financial and political challenges. The Internet age offers the opportunity to work on remedies. The firms that control the Internet must be more effectively regulated, and government interventions, which are necessary, must not result in state high-handedness.

ONOS BITTEN

While generally undesirable, centralisation promised to be a boon vis-à-vis public access to research through India's 'One Nation, One Subscription' (ONOS) plan. ONOS was first proposed in the country's fifth draft National Science, Technology, and Innovation Policy (2020) in response to the hefty fees research journals charged — and still do — for scholars and the people at large to access the papers they published. In this revenue model, journals accept and publish papers submitted by scholars and charge those who want to read them a fee. Research institutes also subscribe to these journals, so scholars can avail all the papers through their libraries. As these fees climbed over time, librarians banded up in consortia to increase their bargaining power at negotiations. ONOS, which the Union Cabinet approved on November 25, replaces these consortia with the national government and obliges journals to provide a single fee to access them. The upshot is expensive journals will now become available at underfunded government institutes as well.

However, ONOS will be limited to publicly funded institutes; and it allows the stranglehold of commercial publishers on scholarly publishing to continue. Many journals subsist on publicly funded research while also charging people money to access it. ONOS may reduce these sums but the government's willingness to allocate ₹6,000 crore for three calendar years for 30 major publishers must be seen against the backdrop of the gross expenditure on research and

development as a fraction of the GDP having become stagnant. The government could have promoted the adoption of 'green' and/or 'diamond' open-access models that guarantee public access by default or have supported, as a matter of policy, home-grown journals sensitive to Indian scholars' circumstances while enhancing the discoverability of their research. The decision to instead channel a large sum of money to publishers abroad does not factor in India's potential to influence research access modalities in the developing world. The lack of transparency is also perturbing, including over whether the list of journals will be monitored to cull titles that have become irrelevant or predatory, or to add those that have gained currency in recent years. Most of all, at a time when many journals have switched to 'gold' open-access — where researchers pay to have a paper published that is then available for free — and preprint papers are gaining in popularity as a means of communicating research, the government's justification for adopting the ONOS strategy in its present form is weak. Add to this the absence of consultation with the institutes on their specific needs, and any celebration of ONOS will have to be deemed premature.

FIRST PHASE OF 'ONE NATION ONE SUBSCRIPTION' APPROVED: HOW THE SCHEME CAN IMPROVE GOVT INSTITUTIONS' ACCESS TO JOURNALS

The Union Cabinet on Monday (November 25) approved a budgetary allocation of Rs 6,000 crore for an initiative called 'One Nation One Subscription' (ONOS) which the Centre hopes will help India's higher education institutions (HEIs) access academic resources for the better.

Aiming to centralise journal subscriptions for nearly 6,300 government-run institutions, ONOS seeks to provide equitable access to 13,000 scholarly journals under a single platform.

Here's a breakdown of the current system, the Cabinet's approval, and the roadmap for this initiative.

How do HEIs currently access journals?

Currently, HEIs can access journals through 10 different library consortia which are under the administrative control of various ministries. A library consortium is a group of two or more libraries that have agreed to cooperate to fulfil certain similar needs, usually resource sharing. For instance, INFLIBNET Centre (Information and Library Network Centre) in Gandhinagar is an Inter-University Centre of the University Grants Commission under the Ministry of Education (India) which oversees the UGC-Infonet Digital Library Consortium, providing access to selected scholarly electronic journals and databases in different disciplines.

Apart from this, HEIs also subscribe to several journals individually. According to government estimates, roughly 2,500 HEIs can access 8,100 journals through the above networks and individual subscriptions.

What does the ONOS scheme offer?

Through the ONOS scheme, the Centre aims to consolidate the disaggregated approach to journal access for all government HEIs. ONOS will enable state and central government HEIs to access thousands of journals on one platform, which will be active from January 1, 2025.

This common platform will host 13,000 journals published by 30 international publishers including Elsevier Science Direct (including Lancet), Springer Nature, Wiley Blackwell Publishing, Taylor & Francis, IEEE, Sage Publishing, American Chemical Society, and American Mathematical Society, among others. All institutions will only need to register on the platform to access these

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journals. INFLIBNET has been designated as the implementing agency for this initiative. The central government negotiated one subscription price for each of the 30 different publishers and approved Rs 6,000 crore for three calendar years — 2025, 2026 and 2027.

"If HEIs still want access to journals outside the 13,000 available on the common platform, they can subscribe to them individually," an officer told The Indian Express.

What is the need for ONOS?

The ONOS scheme has been justified on four grounds.

First, it would expand access to the best scholarly journals for 55 lakh to nearly 1.8 crore students, faculty, and researchers across roughly 6,300 government universities, colleges, research bodies, and Institutions of National Importance (INIs), including those in Tier 2 and Tier 3 cities.

Second, it would avoid duplication of journal subscriptions across different library consortia and individual higher education institutions and hence reduce excess expenditure on overlapping resources.

Third, a single subscription for all central and state government HEIs would provide better bargaining power when negotiating with publishers. Citing an example, a source in the central government said, "We have been meeting with representatives of different publishers over the last two years, and during this time, we have worked to negotiate the best price. As a result, the initial cost of Rs 4,000 crore per year for 13,000 journals has been reduced to Rs 1,800 crore."

Fourth, the Centre will gain insights into the extent to which journals are being accessed and downloaded by the government higher education ecosystem, according to the official. "This will not only help in long-term planning but also allow us to encourage inactive institutions to fully utilise the platform and promote its benefits among their teachers, students, and researchers," the officer said.

When was ONOS conceptualised?

The initiative originates from the National Education Policy (NEP) 2020, which emphasised research as a cornerstone for achieving excellence in education and national development. "If India is to become a leader in these disparate areas, and truly achieve the potential of its vast talent pool to again become a leading knowledge society in the coming years and decades, the nation will require a significant expansion of its research capabilities and output across disciplines," the NEP 2020 states. The policy strongly recommended the establishment of a National Research Foundation (NRF) to seed, fund, nurture, and promote research and development (R&D) while fostering a culture of innovation across India's higher education ecosystem.

In 2022, the central government took a concrete step toward this goal by forming a core committee of secretaries, chaired by the Principal Scientific Advisor. This committee then constituted a cost negotiation panel to carry out robust negotiations with journal publishers for the ONOS initiative. The Anusandhan National Research Foundation (ANRF) was established early this year.

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What happens next?

The next step is for the central government to negotiate Article Processing Charges (APCs) with journal publishers. APCs, also known as publication fees, are charges authors must pay to publish in certain journals. Scientific journals have various ways of generating income to cover publishing, editorial, operational, peer-review, and other functional costs. Open-access journals typically charge a specific fee for article processing, known as the APC.

According to government estimates, authors in India paid nearly ₹380 crore to journal publishers as APCs in 2021. Similar to how the government negotiated a single subscription rate for all government-run higher education institutions (HEIs), it now aims to do the same for APCs. The Centre believes this approach will reduce overall costs. To achieve this, subject-specific groups of experts from participating ministries will be formed to negotiate with journals on APCs for research papers.

As for whether ONOS will also cover private HEIs, the government has not yet made a decision, sources said.

HOW UNDERGRADUATE STUDENTS COULD SOON COMPLETE COLLEGE DEGREES WITHIN LONGER OR SHORTER DURATIONS

Undergraduate students will soon have flexibility in completing their programmes in less or more time than the standard three or four years, following a recent decision by the University Grants Commission (UGC).

Whether students opt for an 'accelerated' or 'extended' timeline, they will earn the same degree as those on the standard track, provided they fulfil all academic requirements. Higher education institutions can offer these options starting with the 2025-26 academic session.

Here's what the programmes might look like and how they could benefit students.

What are 'Accelerated Degree Programmes' (ADPs) and 'Extended Degree Programmes' (EDPs)?

At the end of the first or second semester, but not beyond, undergraduate students will be allowed to opt for an ADP or an EDP. Students enrolled under an ADP will follow the same curriculum and must earn the same number of credits as required for a three- or four-year UG programme. However, they can complete their programme sooner by earning additional credits starting from the semester they choose the ADP.

Under this scheme, a three-year UG programme can be completed in five semesters instead of the standard six (shortened by a maximum of one semester), while a four-year UG programme can be completed in six or seven semesters (shortened by a maximum of two semesters) rather than eight.

On the other hand, students who choose the EDP will be allowed to earn fewer credits per semester compared to the standard programme, allowing them to take longer to complete their course. Their course duration can be extended by a maximum of two semesters.

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What is the objective behind ADP and EDP, and who may benefit from it?

UGC Chairman M Jagadesh Kumar said the National Credit Framework allows students to complete UG courses in accelerated or extended programmes to accommodate "diverse academic needs and cognitive abilities".

"ADP allows high-performing students to complete their degrees faster by earning additional credits and allowing them to enter the workforce or pursue higher studies sooner. Conversely, EDP supports students who face academic challenges by offering them an extended timeline to complete their degrees at a manageable pace. Together, these options promote equity, ensuring all learners have the means to achieve their educational goals," he added.

How will they be implemented?

The UGC's recently approved Standard Operating Procedure (SOP) calls for higher education institutions to set up a committee to scrutinise the applications they receive for ADP and EDP at the end of the first or second semester and select students accordingly. According to the SOP, the committee will evaluate the "credit-completing potential" of the student based on their performance in the first or second semester. An institution can earmark up to 10% of the sanctioned intake for ADP students.

On the SOP not having such a cap for the number of EDP students, Kumar said: "Students with weaker academic performance often require more time to understand and apply concepts. EDP enables them to take fewer credits per semester, allowing them to focus intensely on each course without the stress of heavy workloads. This is why we have not kept any upper limit for EDP."

The committee will also decide the minimum number of credits a student must earn in each semester under the ADP and the EDP, considering the UGC's Curriculum and Credit Framework for Undergraduate Programmes.

Will the exams or degrees be any different from standard ones?

The exams will remain the same as standard three- or four-year UG programmes. The SOP says that government departments, private organisations, and recruiting agencies should treat ADP and EDP degrees on par with degrees completed in the standard duration. It adds that the degree should contain a note that states that the academic requirements for a standard programme have been completed in a shorter or extended duration.

Kumar said: "ADP and EDP apply to both three-year UG programmes or four-year UG programmes with honours/honours with research. For students opting for either ADP or EDP, earning the total credits required in a standard four-year UG Programme with honours/honours with research would qualify for an Honours degree."

When will the options kick in and how will institutions prepare?

Kumar said higher education institutions can start offering ADP or EDP from the July-August session in the 2025-26 academic year. It would be up to the institutions to decide whether they would like to offer these programmes.

"Institutions can offer courses in online or hybrid modes, leveraging the UGC's approval for up to 40% of courses being delivered online. This will allow students in ADP or EDP to take additional or fewer credits at their own pace without disrupting regular class schedules. Additional classes

can be scheduled outside standard hours to accommodate ADP students. This option benefits students who want face-to-face interactions but have a compressed timeline," Kumar said.

He added: "ADP students can enrol in advanced or specialised courses already part of postgraduate or advanced undergraduate curricula, allowing them to fulfil credit requirements more efficiently. Micro-credentials can be introduced, enabling students to accumulate credits at their convenience. These can include skill-based programs that align with degree requirements. Higher education institutions could introduce an inter-semester term (e.g., summer or winter) where ADP students can take additional courses. This would not interfere with the regular semester structure. Students can take electives or core courses from different departments to flexibly manage their credits."

A LIBERAL ARTS DEGREE IS WORTH MUCH MORE THAN REALISED

We are all too familiar with the recession of 2008 and its subsequent impact on the decline of the humanities and more generally, the liberal arts, in North America and Europe. In the context of the 'existential crisis' facing classic liberal arts programmes, questions have often centred on their relevance and whether they offer tangible 'real-world' skills, resulting in a diverse range of outstanding career outcomes. An article in The New Yorker, "The end of the English major", published in 2023, argued that traditional liberal arts study has become the 'quaint province of a privileged elite, comprising students who do not expect a return on their investment and can afford to spend time on unremunerative pursuits'.

The 'getting a job' concern

As a result, liberal arts degrees face increasing criticism in policy discussions for failing to equip students with the knowledge and the skills valued in the labour market, often leading to inadequate financial returns on their educational investments. Given the discursive link between higher education and job prospects, domain-specific experts and counsellors advise aspiring high school graduates to pursue degrees in business, finance and economics, in order to secure jobs. The statistics are striking: in 1966, 14% of all college graduates in the United States were majors in the humanities (central to the liberal arts); by 2010, that figure dropped by half to only 7%. The discourse is not simply limited to the low likelihood of finding jobs after a liberal arts degree, but also suggests that associated majors are concerned only with abstract ideas. This might have something to do with the context within which liberal arts emerged in early modern Europe, as a means of avoiding manual labour or working with hands. A liberal arts education that combined humanities with science was thought to produce a 'thinking' individual. In many ways, the idea of a liberal arts education seems antithetical to expectations of regional development that involves some technical training and knowledge. Despite its beginning, liberal arts have evolved in practice to be so much more.

Liberal arts enable students to comprehend those things that quite literally make us human. The skills that they cultivate in reasoning and critical thinking are every bit as important to future success in the workplace as learning to code, calculate, or raise capital. To paraphrase the longest serving President of Harvard University, Charles Eliot, a liberal arts education teaches a student a little bit of everything, and a great deal of one thing. Given such a powerful approach to generating scholars possessed of all-round disciplinary, and indeed, life skills, it appears peculiar that anyone would want to quibble with the exciting possibilities of such an outcome. Let us also note that while liberal arts is experiencing a decline in North America, it has seen a re-emergence in Europe and shows no sign of abating. Only five years ago, the University of Nottingham, U.K., opened a

new liberal arts programme, promising that this new initiative will enable students to explore what it means to be human. Today more than 20 universities in the U.K. offer some form of liberal arts and sciences programme. For some, this re-emergence has arisen partly as a corrective to the region's more recent over-specialisation in education.

Towards the east, a decade ago, in Hong Kong, a major educational overhaul saw numerous institutions move from a British-style three-year degree model to a U.S.-style four-year model, with the aim of incorporating the greater breadth evident in a 'liberal arts' approach. This compromise between the full breadth of a liberal arts degree and the specialised approach of a traditional British-style bachelor has also been taken up in other parts of Asia, where liberal arts is often seen as a component of a specialised degree, rather than being offered as a degree in its own right. The idea is that specialised education can be supplemented with a humanistic approach to produce a well-rounded individual who practises critical thinking.

The world versus India

So, as an international phenomenon, the promotion of liberal arts education emerged within countries usually as a combination of indigenous educational reform movements and inchoate transnational advocacy networks. Of course, now there is universal consensus that liberal education prepares students well for life in a globalised, multicultural, society — one that makes them more aware of a variety of cultures and the need to communicate effectively across cultural differences; teaches them to evaluate new ideas with evidence; and formulate opinions, not make assumptions. Today's students also want an education that will address their desires for justice, service and self-expression, while equally wanting to develop the non-cognitive skills that will allow them to be successful in a globally competitive job market.

India offers an intriguing case in point. For a nation where higher education has traditionally focused on professional courses, including engineering and medicine, the last couple of decades has witnessed a sudden interest in liberal arts education. Businesses, non-governmental organisations, and government entities increasingly recognise that a discipline-specific technical education alone is not sufficient for the wholesome growth of the country's economy and society. 'Soft skills', which can be honed through a classical liberal arts education, are crucial in this context. While the rapid development of liberal arts in India has been welcomed by several, others ask — and, quite rightly — whether students will get jobs after liberal arts training; whether liberal arts is suitable for a developing country; whether critical thinking skills help students solve India's societal problems — poverty, hunger, caste, and class inequalities.

Preparing students to be global citizens

Even for parents without the experience of studying for a degree, it does not take too much imagination to produce a 'usefulness' argument in favour of encouraging their children to take a scientific or technological subject. Even pure science holds out the prospect of a practical application one day. But for the liberal arts, the arguments are much more nuanced. The liberal arts impart the so-called soft skills associated with how to think for yourself, how to research and find things out for yourself, and how to communicate the results to other people. And there is a lot of truth in this. It is for these reasons that the new generation of liberal arts institutions in the country pioneered a model of education that appeals to several stakeholders. Employers highlight the communication skills and the creativity that liberal arts students bring to their workplaces and praise their ability to engage with multidisciplinary teams for effective problem-solving and creative thinking.

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The technique of threading different kinds of content, conversations, and curriculum is the genius of the faculty in liberal arts institutions, who curate and incorporate the best of substance and knowledge in terms of interdisciplinary and experiential learning, the use of technology, and mentorship to attract young minds towards the best educational experience and to prepare them to be global citizens.

Evidently, we can no longer make the claim that liberal arts students have no concern for the real world. They are proving otherwise. They are taking over the world, one interwoven lesson at a time.

WHY ODISHA GOVT WILL BRING IN LAW TO PREVENT CHEATING IN RECRUITMENT EXAMS

The Odisha government has decided to enact a new law with stringent penal provisions to check cheating and other discrepancies in public examinations conducted by various recruitment agencies of the state.

Officials said the proposed law would be aimed at effectively and legally deterring persons, organised groups, or institutions that indulge in various unfair means and adversely impact the public examination systems for monetary or wrongful gains. Currently, there is no specific law in Odisha to prevent cheating in examinations.

The government plans to pass the law — known as the Odisha Public Examination (Prevention of Unfair Means) Act, 2024 — in the ongoing session of the state assembly.

Offences under the purview of the law

According to the proposed law, actions such as leaking question papers, providing solutions to questions by unauthorised persons during the examination, and tempering with answer sheets or any documents for shortlisting candidates are offences. Violation of security measures to facilitate unfair means, tempering with computer networks or systems, manipulation in seating arrangements, and creation of fake websites to cheat or for monetary gain are also offences.

The law says it is an offence for the service provider to hold examinations in alternative premises without the written approval of the public examination authorities.

Punishment for offences

All offences under the new law will be cognisable, non-bailable and non-compoundable. Any person resorting to unfair means and offences under this law will be punished with imprisonment for a term not less than three years which may extend to five years and with a fine of up to ten lakh rupees.

The service provider shall also be liable to be punished with the imposition of a fine up to Rs 1 crore while there is also a provision to recover the proportionate cost of examination from the service provider. In such a case, it would be barred from being assigned with any responsibility for the conduct of any public examination for four years.

If the director, senior management or the persons in charge of the service provider firm found of committed any offence under the law, they will be liable for imprisonment for a term not less than three years which may extend to ten years and with a fine of Rs 1 crore.

Similarly, if a person or group of persons including the examination authority or any other institution commits an organised crime, they will be punished with imprisonment for a term not less than five years, which may extend up to ten years and with a fine of not less than Rs 1 crore. If an institution is involved in committing an organised crime, its property shall be subjected to attachment and forfeiture and the proportionate cost of examination shall also be recovered from it.

An officer not below the rank of deputy superintendent of police (DSP) or assistant commissioner of police (ACP) can only investigate the offences under this proposed law.

Why the law is needed

In October, hundreds of job seekers in Odisha staged protests demanding the cancellation of online examinations conducted by various public examination authorities for recruitment to posts such as revenue inspectors, Amin, ICDS supervisors and statistical officers citing massive discrepancies in the way the exams were conducted.

Recently, there were allegations about examinations being conducted in various cyber cafes and small computer centres in shopping malls without proper security arrangements. Last year, the Odisha Staff Selection Commission had to cancel and reschedule the examination for recruitment to fill a total of 1,225 vacancies of which 1,008 are for the post of junior engineer (civil) and the remaining 217 are for the assistant training officer following question paper leak.

WHAT CAN CAQM DO TO IMPROVE DELHI AIR?

The story so far:

Air pollution in Delhi has been in the 'severe' and 'severe plus' category for the most part of the last 10 days. This week, the Supreme Court pulled up the Commission for Air Quality Management (CAQM), the government's monitoring agency, on its inadequate pollution control response.

What is the CAQM?

The CAQM in the National Capital Region (NCR) and adjoining areas came into existence through an ordinance in 2020, which was later replaced by an Act of Parliament in 2021. The CAQM was set up for better coordination, research, identification and resolution of problems surrounding air quality and connected issues. It initially had 15 members, comprising officials, past and present, of the environment ministry and other departments of the Union government, as well as officials of various State governments, and representatives from NGOs and other agencies. The CAQM is now headed by Rajesh Verma and there are 27 members.

The CAQM replaced the EPCA (Environmental Pollution (Prevention and Control) Authority), which was formed in 1998 by the Supreme Court. However, the EPCA was not backed by a statute and experts had raised the issue that it lacked the teeth to act against authorities which did not follow its orders. Despite that drawback, it was under the EPCA that many of the measures being followed by the CAQM started, including the Graded Response Action Plan or GRAP, a list of temporary emergency measures to control air pollution.

What are the powers of CAQM?

Under the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021, the CAQM was given the power to take all measures, issue directions and

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entertain complaints, as it deems necessary, for the purpose of protecting and improving the quality of air in the NCR and adjoining areas. Under Section 14 of the Act, the CAQM can initiate stringent actions against officers for not following its orders.

Why did the SC pull up the CAQM?

Over the years, the Supreme Court which has been hearing an ongoing case on air pollution, has pulled up different governments and agencies for their laxity. On September 27, Justice A.S. Oka and Justice Augustine George Masih orally observed about CAQM: "Like pollution, your directions are in the air." The court was referring to various stakeholders not following the CAQM's orders despite specific provisions under the 2021 Act. "There has been total non-compliance of the Act. Please show us a single direction issued to any stakeholder under the Act... We are of the view that though the Commission has taken steps, it needs to be more active. The Commission must ensure that its efforts and directions issued actually translate into reducing the problem of pollution," the Bench observed. On November 18, the Supreme Court slammed the CAQM for delayed action while directing stringent curbs under Stage IV of the GRAP and noted that rather than taking pre-emptive action to contain air pollution, it waited in vain for the air to improve. Stage IV is the highest level of restrictions under GRAP, and according to the CAQM's rules, it is supposed to be implemented when the air quality category is likely to fall to 'severe plus', and is likely to remain in that level for three or more days. The court pulled up the CAQM for delaying implementation of curbs though the AQI had slipped to the 'severe plus' category.

Is the CAQM to blame for Delhi's pollution?

Though the CAQM makes plans and coordinates with different agencies, it is the agencies that have to implement them on the ground.

An official of the CAQM said the commission has improved coordination and planning. "For example, though the paddy stubble burning, which is a source of severe pollution, happens in October-November, we start meeting State officials from February and continue talks till the season is over," the member said. The CAQM had also coordinated with Punjab and Haryana to prepare action plans for controlling stubble burning in 2022 and it is updated every year.

About challenges that the commission faces, the official said, "Over the years, though we were looking at different sources of pollution and trying to control them, our main focus was on controlling stubble burning. But from now onwards, we will try to focus on multiple areas. We will be putting more energy and time on controlling dust and vehicular pollution too."

Anumita Roychowdhury, executive director, Centre for Science and Environment, said that the decision to impose GRAP should be taken proactively by the CAQM. Pollution forecasting methods have to be more accurate, she added.

ON STUBBLE BURNING AND SATELLITE DATA

The story so far:

The air quality in the national capital has been struggling to recover from the lows to which it dropped right after Deepavali despite the implementation of GRAP stage IV measures, the active intervention of the Supreme Court, and stop-gap measures by the Delhi government. Many fingers are currently pointed at the farm fires in the surrounding States, where farmers are burning paddy stubble in time for the wheat-sowing season. While these fires are not solely responsible for

Delhi's plight, a controversy over measuring their prevalence illustrates the amount of attention they are receiving.

How are the fires counted?

Farmers in Punjab and Haryana sow rice in the kharif season and harvest it in November, using the summer monsoons to quench the crop's high water demand. After the rice is harvested, they need to clear the leftover organic material — called paddy stubble — in order to make way for the next sowing season. For reasons of time and cost, they have traditionally preferred to burn the stubble. But thanks to the winds at this time of the year over the National Capital Region, the toxic particulate matter from the fires is floated to and hangs over New Delhi, dragging its air quality down.

Because of the large area over which farmers light the fires, officials have said satellites are the best way to track the fires. The Indian government currently procures this data from two NASA satellites called Aqua and Suomi-NPP.

NASA launched Aqua in 2002 and it is currently in the twilight stage of its designed lifespan. Its Moderate Resolution Imaging Spectroradiometer (MODIS) instrument was built to track changes in the lower atmosphere, especially over land, through time. MODIS's technical successor is the Visible Infrared Imaging Radiometer Suite (VIIRS) instrument onboard Suomi-NPP, which NASA launched in 2011. Both satellites are part of NASA's 'Earth Observing System'.

Aqua's and Suomi-NPP's overpass at each location happens at 1:30 p.m. local time in the day and at 1:30 a.m. local time at night. Their MODIS and VIIRS instruments collect visible and infrared images of the earth at around these intervals and are capable of spotting fires and smoke in a small window centred on the overpass time. The Ozone Mapping and Profiler Suite onboard Suomi-NPP can also identify aerosol loads in the atmosphere, which is useful to track smoke from fires and their eventual contribution to air pollution.

What is the new controversy?

On October 2, a senior scientist at NASA's Goddard Space Flight Centre named Hiren Jethva wrote on X (Twitter) that there were 40% fewer farm fires than predicted in 2023 and expressed hope for the trend to continue this year. On October 24, Mr. Jethva wrote in the same thread that the number of fires in 2024 seemed to be the "lowest in [the] last decade", and added that either "ground efforts to curb residue-burning appear to be working or burning activities [are] taking place after satellite overpass time, but it needs ground-truthing".

His post implied farmers were burning paddy stubble after the Aqua and Suomi-NPP satellites had completed their overpass at around 1.30 pm.

The next day Jethva followed up by comparing data from Aqua and Suomi-NPP with data from the GEO-KOMPSAT 2A satellite. South Korea launched this satellite, also called Cheollian 2A, in 2018 as a "dedicated geostationary weather satellite"; it's currently stationed at 128.2º E and has a planned mission life of at least a decade.

In the visuals Mr. Jethva collected and presented from the three satellites, the smoke cover over cropland in Punjab and Haryana seemed to thicken after Aqua and Suomi-NPP had completed their overpass, as if farmers were lighting more fires later in the day from before.

The senior scientist also wrote that the quantity of aerosols in the air was roughly the same as in previous years whereas it should have been lower given Aqua and Suomi-NPP indicated there were fewer fires.

Is the discrepancy real?

In 2020, the Indian government created the Commission for Air Quality Management in the NCR and Adjoining Areas (CAQM for short) by ordinance and a subsequent Act of Parliament in 2021. Its mandate was to study, identify, and resolve issues relevant to improving air quality in its jurisdiction.

On Saturday, The Hindu reported based on multiple sources and documents that the CAQM was aware farmers were burning paddy stubble after the NASA satellites had completed their overpass to avoid being detected. However the CAQM has continued to insist in the public that the number of farm fires has dropped, defending its conclusion in the face of contrary evidence by claiming it used different formulae.

That farmers were aware of the overpass timings is recorded in the minutes of a March 7, 2024, meeting, where director of Haryana Space Applications Centre Sultan Singh and National Remote Sensing Centre (NRSC) scientist Bhavana Sahay alleged as much. Farmers on the ground also told The Hindu a government official had asked them to light fires after 4 p.m.

(The alleged advice echoes Goodhart's law: "when a measure becomes a target, it ceases to be a good measure".)

The CAQM has also come under the pump from a second angle: in affidavits to the Supreme Court, it has said the burnt area in Punjab shrunk 26.5% between 2022 and 2023 whereas data from the Government of Punjab and the Indian Agricultural Research Institute, which is funded by the Centre, says it increased 24% and 15% respectively.

How is the government responding?

The Centre had originally created the CAQM to replace the Environmental Pollution (Prevention and Control) Authority (EPCA), which the Supreme Court had created in 1998. EPCA was a non-statutory body and lacked the instruments to sanction non-compliant actors. CAQM was designed to have teeth in the 2021 Act — and which it has since been accused of not wielding.

The Supreme Court in particular has upbraided the CAQM for failing to mitigate air pollution resulting from the fires over the years. The body was expected to respond on November 25 to the Supreme Court to allegations that it was aware farmers were delaying burns to after the satellites' overpass.The Indian government is also on the back foot after Union Agriculture Minister Shivraj Singh Chouhan said on October 26 that the number of stubble-burning incidents have dropped this year.

But the CAQM has also maintained that its efforts have lowered the prevalence of fires by 71% in Punjab and 44% in Haryana between 2020 and 2024, and has objected to the idea of a group of retired judges overseeing the fight against stubble-burning.

The CAQM also said it wrote to the NRSC — a body under the Indian Space Research Organisation (ISRO) — asking it to develop a standard protocol to measure burnt area in January 2024. At present, burnt area data is available once every five days from the Sentinel II satellites of the European Space Agency.

Can Indian satellites help?

In an affidavit to the Supreme Court on November 21, the CAQM said ISRO plans to evaluate the usability of data from various satellites to identify farm fires. According to the affidavit, ISRO experts are of the view that data from INSAT-3DR (by India), GEO-KOMPSAT 2-AMI (South Korea), Meteosat-9, Feng Yun-4A/4B (China), and HIMAWARI-8 (Japan) cannot provide accurate fire counts — although their assessments will not be complete for at least another month.

The problem with INSAT-3DR is that its data is too coarse: of 1 km in visible and short-wave infrared radiation, of 4 km in middle and thermal infrared, and of 8 km for water vapour. In August 2021, ISRO had launched another satellite that could have been useful in this context, GISAT-1, but the GSLV-F10 mission carrying it failed after the rocket's upper stage failed to fire.

ISRO also operates the three RESOURCESAT satellites, launched in 2003, 2011, and 2016, with similar payloads. Those in RESOURCESAT 2A have better features, however. The Linear Imaging Self Scanner (LISS) cameras 3 and 4, both of which 'see' in visible and near-infrared radiation; LISS-4 has a spatial resolution of 5.8 m and LISS-3, of 23.5 m. The Advanced Wide Field Sensor (AWiFS) camera detects similar radiation at an even lower resolution of 56 m.

HOW SHOULD INDIA TACKLE DIABETES LOAD?

The story so far:

On International Diabetes Day (November 14), a paper published in the The Lancet, based on a global study, recorded over 800 million adults living with diabetes, with more than half not receiving treatment. According to the study, the total number of adults living with either Type 1 or Type 2 diabetes in the world has surpassed 800 million — over four times the total number in 1990. Of this, over a quarter (212 million) live in India, with another 148 million in China. The estimate came as a bit of a shock, because the last scientific countrywide estimate by the Indian Council of Medical Research-INDIAB study last year had pegged the number at slightly over 100 million.

Why is there a discrepancy in numbers?

The nub of it is in the means used to measure blood sugar, experts have pointed out. The Lancet study, conducted by the NCD Risk Factor Collaboration (NCD-RisC), along with the World Health Organization (WHO), used data from over 140 million people (18+ years) culled from more than 1,000 studies in different countries. They estimated trends from 1990 to 2022 in diabetes prevalence and treatment for 200 countries and territories. As such they had to use what was available as data in these nations — picking fasting glucose or HbA1C or a three-month glycated haemoglobin average. The ICMR study, however, used a fasting measure and a two-hour post prandial value to come up with the number of people who have elevated blood sugar levels.

It is the use of differing measures to estimate diabetes that has led to the variation. V. Mohan, chairman, Madras Diabetes Research Foundation, Chennai, who was part of the ICMR-INDIAB study says, while a number of countries have moved to measuring HbA1C, India still sticks to the measure of the fasting and two-hour post prandial readings with an Oral Glucose Tolerance Test (OGTT) as the gold standard. "If they had taken the OGTT values alone, then the number would be half of what was recorded," he says. "Using HbA1c, they preferred a single cut-off point to determine diabetes — 6.5 %. Even in those with normal glucose, a small percentage will spill over into the 6.5% HbA1c value, depending on whether individuals are 'fast' or 'normal glycators'.

Glycation is influenced by many things, including anaemia, and advancing age. Someone who is nondiabetic too, but is older, may have a high A1C value. In some earlier studies, when we used HbA1C, we found a doubling of the figures," he adds, reasoning out why the OGTT figures are considered the gold standard.

However, he adds that a global study the size of what was attempted as part of this exercise would have to use the information already available in countries, and not all nations have OGTT fasting and post prandial values.

Anoop Mishra, chairperson, Fortis CDOC Hospital for Diabetes and Allied Sciences, adds that sources of data are multiple here, thereby giving rise to apparent differences in total numbers. Also, he adds that Type 1 diabetics are a small proportion of the total diabetes cases in India, and it is Type 2 diabetes that poses problems for the future.

What are the areas of concern?

Whether 100 million or 200 million, the fact remains that India already has a large number of people requiring treatment for their diabetes, and who, as a consequence are prone to several life-threatening complications involving the heart, eyes, kidneys, and peripheral nervous system. Quibbling over numbers apart, the Lancet study must be seen as yet another reminder that in India, diabetes has grown — and is growing — across populations, and efforts should be made on a warfooting to both prevent diabetes and treat persons with the condition.

Another aspect that the study highlighted was the lack of access to treatment for people with diabetes. Senior author of the paper, Majid Ezzati, of the Imperial College, London, says: "Our study highlights widening global inequalities in diabetes, with treatment rates stagnating in many low- and middle-income countries, where numbers of adults with diabetes are drastically increasing. This is especially concerning as people with diabetes tend to be younger in low-income countries, and in the absence of effective treatment, are at risk of life-long complications, including amputation, heart disease, kidney damage or vision loss, or in some cases, premature death."

No country in the world can afford to treat patients when the complications of diabetes set in, explains Dr. Mohan. "Even if we assume we have 100 million people with diabetes and 20% of them move to kidney failure, then that is 20 million people who will need a kidney transplant. How are we going to help all those people?" Dr. Mishra invokes a war metaphor, to stress the urgency of the fight ahead for challenges that might seem, like the labours of Hercules, impossible to achieve and yet only require near superhuman effort. "Unless war-like efforts, using mass media for raising awareness on nutrition, physical activity, are put in, and more legal provisions to cut down carbs and sugar-sweetened beverages, it will be a tall order to keep the numbers from rising," he says. Speaking ahead of World Diabetes Day, International Diabetes Federation Peter Schwarz spoke about prevention as the primary, crucial aspect in this game: "My heart is beating for prevention. And then the next step is prevention, and then prevention again."

Dr. Mishra adds that nations such as India have a duty to focus on the vulnerable, lower middle class, semi-urban and rural people. "We have to majorly educate women since they are prone to obesity post pregnancy and have a heightened risk at menopause. We need to cut off the rising trend of obesity, [Abdominal obesity has been identified as one of the key causes of diabetes among Indians] with all these efforts. A long-term vision for about 10 years is required," he explains.

What can individuals do?

The Lancet paper identifies obesity and poor diets as important drivers of the rise in Type 2 diabetes rates. Diabetes rate was either already high or increased more in some of the regions where obesity was or became prevalent between 1990 and 2022, compared to many high-income countries, especially those in the Pacific and western Europe, where, in general, obesity and diabetes rates did not rise or rose by a relatively small amount. The writing is on the wall: a measure of mindful eating and exercising have a proven effect in preventing diabetes, and controlling blood sugar levels.

The challenge for governments, however, is to make it possible for people to exercise these healthy choices, and for people to demand it of their rulers. As Anjana Ranjit, a collaborator on the ICMR-INDIAB study, says: "We need to see more ambitious policies that restrict unhealthy foods, make healthy foods affordable. Opportunities to exercise must be ensured, besides promoting safe places for walking and exercising, including access to public parks and fitness centres, subsidies provided for healthy foods and free, healthy school meals."

SIDHU AND THE DANGEROUS 'CITIZEN DOCTORS'

Coconut, whether it's made into a chutney or pressed to extract "milk", is delicious. Neem leaves, crushed into aloo bhorta or stir-fried with brinjal, too, is a versatile addition to the pantry. Both ingredients are valued for flavour and nutrition. But to insist that they can cure cancer, as Navjot Singh Sidhu did recently, in a press conference in which he spoke of the dietary measures that allegedly helped his wife beat stage-four cancer in "40 days", is misleading and dangerous.

Sidhu's claims — among them that cancer cells can be "starved" of carbohydrates —are, unfortunately, not an aberration. Where charlatans once had to rely on relatively slow word-of-mouth networks to attract customers for their dubious cures, social media has enabled the mushrooming of a range of "wellness experts" — from "alternative healers" to celebrity peddlers of new-age therapies. It has turbocharged the spread of questionable remedies, such as hydrogen peroxide nebulisation for viral infections (as shared by actor Samantha Ruth Prabhu in July), and claims with no basis in fact, such as the long debunked assertion that vaccines lead to autism in children.

The gharelu nuskha (home remedy) is tempting — not only because of its convenience, but also because it is often promoted as a cheaper, safer alternative to modern medicine. This is precisely what makes the rise of the deeply-unqualified citizen doctors, who offer healthcare advice, from so-called biohacks to treatments for serious conditions like cancer, so dangerous — especially in a country like India, which has a massive disease burden and a large population with limited access to affordable medical care. Coconut and neem leaves may be nutritious — and may even help strengthen the immune system — but when it comes to illnesses, the cures are best left to those who actually graduated from medical school.

AROUND TWO LAKH CHILD MARRIAGES WERE PREVENTED IN A YEAR, SAYS WCD MINISTRY

Child marriages in India halved from 47.4% to 23.3% in 2019-21 since the introduction of the Prevention of Child Marriage Act in 2006, said Union Women and Child Development Minister Annapurna Devi here on Wednesday.

The Minister said around two lakh child marriages were prevented in the past one year, even as one in five girls in India is married before reaching the legal age of 18.

Recent reports by the United Nations note that, globally, the most significant decline in child marriage rates have been observed in South Asian countries, India being a significant contributor, Ms. Devi said in her address while launching the Bal Vivah Mukt Bharat Abhiyan (child marriage-free India campaign) here. However, despite the progress, there was no room for complacency, she said.

Focus on 7 States

The 'Bal Vivah Mukt Bharat' campaign will focus on the seven States with high burden of child marriages — West Bengal, Bihar, Jharkhand, Rajasthan, Tripura, Assam, and Andhra Pradesh — and nearly 300 high-burden districts where child marriage rates are high compared with the national average.

The campaign will call on every State and Union Territory to devise an action plan aimed at reducing the child marriage rates below 5% by 2029.

A key feature of the campaign is the launch of the 'Child Marriage Free Bharat' portal, meant to raise awareness, report cases, and monitor progress.

"Guided by the past experiences of BBBP ['Beti Bachao, Beti Padhao (Save daughter, educate daughter)' Programme] and the recent judgment of the Hon'ble Supreme Court, the 'Bal Vivah Mukt Bharat' campaign aims to bring all stakeholders together to spread awareness up to the grassroots and bring attitudinal change towards ending child marriage," Ms. Devi said.

The Union Minister added that apart from laws, "we must also focus on raising awareness because legislation alone cannot eradicate this issue".

We cannot stop until India is completely free of child marriages, she added, calling for active participation from citizens.

KASHMIRI, CENTRAL ASIAN ARTISANS RECONNECT UNDER ONE ROOF IN SRINAGAR

Artisans from Kashmir witnessed a rare reunion with master craftspeople from Central Asia after a gap of about 500 years at the Sher-i-Kashmir International Convention Centre in Srinagar at an event held in the backdrop of the 'World Craft City' tag being awarded to the J&K capital earlier this year.

While artisans from Kashmir traced the roots of many handicrafts to Central Asian countries, their counterparts were mesmerised by the traditional processes preserved by Kashmiri craftspeople.

According to popular history, Zain-ul-Abidin, the ninth sultan of the Kashmir Sultanate from the 15th Century, promoted the local wood-carving industry with the help of master artisans from Central Asia's Samarkand, Bukhara and Persia. After his death, however, craft interactions between Kashmir and Central Asia dwindled with the passage of time, and almost came to an end by 1947, when borders were fortified around Kashmir.

Seventeen artisans, who have travelled from Iran, Tajikistan, Kyrgyzstan, Uzbekistan, Turkmenistan and Russia to Srinagar, have revived lost crafts and cultural links between Kashmir

and Central Asia. The artisans came to Srinagar as part of a rare three-day craft exchange initiative, which concluded on Wednesday.

The World Crafts Council (WCC) granted Srinagar the tag of 'World Craft City' in June this year.

THE DHANUSH-NAYANTHARA DISPUTE AND COPYRIGHT LAW

History has shown copyright can be misused to suppress speech that does not conform to one's views. Numerous takedown requests on platforms like YouTube demonstrate how this strategy is widely used by political parties, corporations, and individuals to silence opponents and critics. While many of these actions are intentional, there is a widespread misconception of copyright law as a framework designed to protect the rights of copyright owners.

The copyright infringement suit initiated by South Indian actor and producer Dhanush against his peer Nayanthara could fall into either of these categories: a wilful attempt to threaten someone that one dislikes or an action arising out of ignorance of the framework of copyright law.

What is the Dhanush-Nayanthara controversy?

The 2015 film Naanum Rowdy Dhaan ('I'm a rowdy, too') was directed by Vignesh Shivan, who married Nayanthara in 2022. The film has been credited with encouraging their union. It was produced by Dhanush's company Wunderbar Films. When Netflix prepared to produce a biopic based on Nayanthara's life, it wished to include excerpts from that film.

On November 16, in a public letter addressed to Dhanush, Nayanthara wrote that she had sought Dhanush's permission to use these excerpts about two years ago but had been met with silence. As an alternative Netflix et al. decided to use a short video clip that Nayanthara claimed to have captured with her mobile phone during the film's making to use in the biopic.

Dhanush responded to this use with the lawsuit.

How are films copyrighted?

Depending on one's perspective — particularly on the power and gender dynamics within India's film industries — there are two sides available to take. Which side depends on the answers to two questions: (i) Copyright in which work has been infringed and who is the copyright owner in that work?; (ii) whether a copyright owner has the right to completely control the use of some copyrighted work?

Copyright law treats a film as an amalgamation of various copyrightable components. So while copyright law vests the copyright of a cinematographic product with its producer, not all copyrights related to a movie necessarily lie with the producer.

Thus it's important to ascertain which copyrighted work has been infringed by the video clipping. Information in the public domain (as of November 28, 2024) indicates no part of the original cinematographic work has been reproduced. If no parts of the original recordings of the movie have been used, the use of the clipping is unlikely to have violated the producer's rights vis-à-vis the cinematographic film. This would also mean one has to carefully check the copyright statuses of the other components amalgamating in the behind-the-scenes (BTS) footage, including music.

Next, even if we assume Dhanush owns the copyright to the entire work, it isn't an absolute right. The rights granted to copyright holders to control access to their work is counterbalanced by

providing certain rights to society to access that work. Section 52 of the Copyright Act 1957 embodies this fair balance of rights within the copyright system — and Indian courts have consistently held that uses falling within the ambit of this section don't constitute copyright infringement.

What is 'fair dealing'?

The concept of 'fair dealing' as enshrined in Section 52(1)(a) is pertinent. The 'fair dealing; section allows the people at large to use a copyrighted work for certain purposes as long as the use is 'fair'. In determining whether a use was fair, a court may consider factors including the extent of use of the copyrighted work and the context of use.

In the present case, the clipping was used for a biopic of Nayanthara. Since the life of an actress is closely intertwined with her films, the use of short clippings from or related to her films may be deemed essential.

It's also relevant that a movie producer may have entered into contracts to control BTS recordings. But the producer will have to show before a court the contracts that restrained artists from making or sharing BTS recordings and the courts should also check whether they are legally valid contracts.

The courts need to take a strong stance against unjustified legal threats using copyright law, particularly because copyright infringements are also subject to criminal remedies.

LOTHAL DEATH: POLICE, ADMINISTRATION SEEK EXPLANATION FROM IITS, ASI

Two days after a 23-year-old Ph D scholar died while working in a trench at the Harappan site of Lothal, the Gujarat police and the district administration have sought explanations from IIT-Delhi and IIT-Gandhinagar along with the Archaeological Survey of India (ASI) asking if due permissions were taken by the four-member research team that visited the spot, and if the Standard Operating Procedure (SOP) was followed.

Surabhi Verma, a researcher at IIT Delhi, died after the excavation pit, from where she was collecting soil samples, collapsed on her on November 27.

Assistant Professor Yama Dixit, 45, was also buried in the cave-in but was rescued by local residents and first responders.

On Thursday, a team from ASI visited the site of the mishap.

Superintendent of Police, Ahmedabad Rural, Om Prakash Jat told The Indian Express on Friday, "The members of the digging team told us in their statements that they had carried out their work outside the prohibited area. However, we are looking into it and will file a report accordingly."

His office, meanwhile, has sent letters to the two IITs and the ASI, seeking an explanation.

The ancient site of Lothal, which contains the archaeological remains of Harappa port town, was declared a protected monument by the Centre in 1999.

According to the ASI website, the gamut of monuments includes prehistoric sites, stone age rock-shelters, Neolithic sites, Megalithic burial sites, rock-cut caves, stupas, temples, churches,

synagogues, mosques, tombs, palaces, forts, bathing ghats, tanks, water reservoirs, bridges, pillars, inscriptions, mounds, kos minars, excavated sites, etc.

According to the website, "...Further, an area up to the limit of 100 metres from the monument or site has been declared as prohibited area and an area up to the distance of 200 metres further beyond the prohibited limit has been declared as a regulated area. For undertaking construction related activities within prohibited and regulated areas, permission from the Competent Authority...is required."

Notably, the research team, which was conducting paleoclimatology studies, had taken the services of a building road contractor to dig the pit using an excavation machine.

Besides IIT-Delhi's Verma and Dixit, the team comprised Associate Professor from IIT Gandhinagar V N Prabhakar, who is a former Director, Exploration and Excavation, ASI, and Senior Research Fellow Shikha Rai.

In a statement, IIT Gandhinagar said the study was being conducted by IIT Delhi and that they, Prabhakar and Rai, had only provided "local support".

'WANTED TO CAPTURE SIDDI COMMUNITY'S COLLECTIVE IMAGINATION, CULTURAL IDENTITY

Rhythm of Dammam is a visually striking and moving feature that shines a light on the marginalised Siddi community — an ethnic group of mainly African descent whose ancestors came to India through the slave trade centuries ago — through the story of 12-year-old Jayaram Siddi (Chinmaya Siddi), who is possessed by his late grandfather's spirit.

• Filmmaker Jayan Cherian's recent work, showcased at the International Film Festival of India (IFFI), delves into the rich cultural tapestry of the Siddi community. Key insights from his project include:

—Exploration of Cultural Identity: Cherian's film aims to authentically portray the Siddi community's unique cultural identity, emphasizing their collective imagination and heritage.

—Focus on the Siddi Community: The narrative centers on the Siddis, an Afro-Indian ethnic group primarily residing in parts of India, highlighting their traditions and way of life.

—Artistic Approach: Through his cinematic lens, Cherian seeks to present an immersive experience that reflects the community's stories and cultural expressions.

Do You Know:

• The Siddis are spread along the coast of Karnataka, Gujarat, Maharashtra, and Andhra Pradesh.

• The Siddi community is an ethnic African group brought to India in the early seventh century by the Portuguese, to work for them. The community is included in the list of the Scheduled Tribes in Karnataka. About 50,000 Siddi people reside in India today, of which, more than a third live in northern Karnataka. Their mother tongue is called Siddi Basha and many are fluent in Kannada.

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A MIGHTY KING REMEMBERED

The birth anniversary of the legendary Chola emperor Raja Raja Chola I is celebrated with unparalleled fervour and devotion every year during the Sadhaya Vizha in Thanjavur of Tamil Nadu. Born as Arulmozhi Varman in 947 CE, he rose to become one of history's most illustrious and visionary rulers. Revered as Raja Raja the Great, he inherited the legacy of his ancestors and crafted an empire that flourished both militarily and culturally. His life is famously depicted in Kalki Krishnamurthy's 1955 Tamil novel Ponniyin Selvan,which was later adapted to a motion picture series under the same title.

Raja Raja's reign, from 985 to 1014 CE, was marked by military prowess and profound administrative vision.

The Sadhaya Vizha, which takes place in the Tamil month of Aippasi (mid-October to mid-November), honours the legacy of a ruler whose influence stretched to Sri Lanka and the Maldives. The heart of the celebration is at the iconic Brihadeeswarar Temple (also known as the Big Temple). While the Tamil Nadu government has made several attempts to have a statue of Raja Raja Chola installed inside the temple, it remains outside the temple compound because the Central government says nothing should be done to disturb the original nature of the temple. The temple itself, a masterpiece of Chola architecture, is a tribute to Raja Raja's devotion to Lord Shiva, revered here as Peruvudaiyar.

The event begins with religious ceremonies, including the sacred abhishekam (holy bath) to Lord Peruvudaiyar, followed by the mesmerising perundeepa vazhipaadu, where lamps are waved in reverence, and the swami purappadu, a procession that carries the deity through the temple. Devotees from all over the region gather to partake in the two-day festivities, which feature cultural performances such as classical dance and hymn singing by odhuvars. Beyond Thanjavur, the celebrations stretch to Udaiyalur near Kumbakonam, where Raja Raja Chola's mortal remains are believed to be interred.

Brihadeeswarar Temple is also a trove of Tamil inscriptions, skillfully engraved on stone. The inscriptions detail the temple's construction, daily rituals, offerings, and special worship ceremonies. This inscription, running to 107 paragraphs, is said to describe how Raja Raja Chola personally oversaw the temple's planning and construction, recorded the gifts offered by him, his sister Kundavai, his queens, and others, and outlined the rituals to be performed.

ECONOMIC HISTORIAN AMIYA KUMAR BAGCHI PASSES AWAY

Professor Amiya Kumar Bagchi, who passed away on Thursday evening, was one of the most outstanding economists, scholars, and public intellectuals of our time. A rebel all his life, he left the college where he had been admitted originally for speaking out against some injustice, and joined Presidency College, Kolkata, which had a freer atmosphere. After his Master's in economics from Presidency, he went to Cambridge University on a West Bengal government scholarship, where he not only finished his doctoral work but also joined the Faculty of Economics and Politics, with a Fellowship at Jesus College.

He had started out as a mathematical economist, in fact a Game Theorist, but changed course while writing his Ph.D. dissertation and, and on the advice of one of his mentors, turned to economic history, a turn for which we must be highly grateful. He was not an economic historian in the narrow sense; rather, he was a macroeconomist working on historical data.

Seeing patterns in data

While digging up new and hitherto unavailable data with a diligence that could match that of the most industrious of the historians, he saw patterns in data which only his macroeconomics could enable him to see. He was thus an altogether new kind of an economist, au fait both in economic theory and in applied economics, including economic history. The first outstanding product of his prodigious scholarship was his book Private Investment in India 1900-1939, which many reviewers, even critics unsympathetic to his argument, have compared to the monumental works of anti-colonial historiography, such as those by Dadabhai Naoroji, Romesh Chunder Dutt, and D.R.Gadgil. This work was followed by his research on "Deindustrialization in the Indian economy in the Colonial Period" which again provided definitive evidence to clinch a long-standing debate that had gone on since the days of Naoroji and Dutt.

SHORT NEWS

LANCET REPORT

— According to a new study published in the Lancent Magazine, pollution caused by landscape fires could have claimed more than 1.2 lakh deaths in India every year on an average in the 20-year period between 2000 and 2019.

— Agricultural burning is just one type of landscape fires contributing to air pollution.

— China had the largest number of such casualties during this period, followed by the Democratic Republic of Congo, India, Indonesia, and Nigeria. Globally, more than 1.53 million deaths could be attributable to such landscape fire incidents, the study said.

— Lower socio-economic countries were more likely to have higher deaths from respiratory illness caused by fires than higher socio-economic countries. The global cardiovascular deaths due to fire pollution increased by an average 1.67 per cent per year.

INTERNATIONAL DAY FOR THE ELIMINATION OF VIOLENCE AGAINST WOMEN

— The United Nations General Assembly designated November 25 as the International Day for the Elimination of Violence Against Women in 1999 to raise awareness against Violence against Women and Girls (VAWG).

— This date was chosen to honour the Mirabal Sisters of the Dominican Republic, who became the symbol of resistance against tyranny and violence.

GLOBAL CONFERENCE OF THE INTERNATIONAL COOPERATIVE ALLIANCE (ICA)

— the ICA Global Cooperative Conference 2024 was inaugurated in New Delhi, India. The conference will run from 25 to 30 November 2024. The theme of the conference is **'Cooperatives Build Prosperity for All'.**

— The ICA Global Cooperative Conference and ICA General Assembly are being organised in India for the first time in the 130-year history of the International Cooperative Alliance (ICA), the premier body for the global cooperative movement.

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

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— On inauguration, PM Narendra Modi launched the UN International Year of Cooperatives 2025, saying that the conference will provide insights into India's future cooperative journey.

— A commemorative **postal stamp**, symbolising India's commitment to the cooperative movement was also launched.

— The stamp showcases a **lotus**. The five petals of the lotus represent the **five** elements of nature (panchatatva), highlighting cooperatives' commitment to environmental, social, and economic sustainability. The design also incorporates sectors like agriculture, dairy, fisheries, consumer cooperatives, and housing, with a drone symbolising the role of modern technology in agriculture.

NATIONAL MILK DAY

— National Milk Day has been observed annually on November 26 since 2014 to commemorate the birth anniversary of Dr Verghese Kurien.

— About Dr Verghese Kurien: He was born in Kozhikode, Kerala on November 26, 1921. Kurien and Tribhuvandas Patel, along with Dara Khurody – who had established the Aarey Milk Colony in Bombay, which provided pasteurising and distribution facilities for the milk from Anand – were awarded the Ramon Magsaysay Award for Community Leadership in 1963.

ATAL INNOVATION MISSION (AIM)

— The Union Cabinet has approved the continuation of its flagship initiative, the Atal Innovation Mission (AIM), and allocated a budget of Rs.2,750 crore for the period up to March 31, 2028.

— AIM which works under the aegis of NITI Aayog is the government's flagship initiative, launched in 2016, aims to promote a culture of innovation and entrepreneurship in the country.

— It has launched the Atal Tinkering Labs (ATLs). ATLs aspires to instil in young minds the curiosity, creativity, and adaptive learning required to become entrepreneurs.

PROJECT CHEETAH

— Two days after cheetah Nirva delivered cubs at Sheopur's Kuno National Park, two newborns were found dead by wildlife officials. Nirva is one of the cheetahs that was relocated from South Africa in 2022 under Project Cheetah.

— Project Cheetah began with the intercontinental translocation of African cheetahs from Namibia and South Africa to the Kuno National Park in Madhya Pradesh. This translocation took place in two batches of eight and then 12 cheetahs.

— The aim behind the translocation is not only to restore India's 'historic evolutionary balance', but also to develop a cheetah 'metapopulation' that will help in the global conservation of the animal.

— As it is a flagship species, the conservation of the cheetah will revive grassland-forests and its biome and habitat, much like Project Tiger has done for forests and all the species found in these forests.

— The cheetah is believed to have disappeared from the Indian landscape in 1947 when Maharaja Ramanuj Pratap Singh Deo of Koriya princely state hunted down and shot the last three recorded Asiatic cheetahs in India. The cheetah was officially declared extinct by the Indian government in 1952.

— India was home to Asiatic cheetahs, and not the African subspecies that were introduced in 2022. The Asiatic cheetah is classified as a "critically endangered" species by the IUCN Red List and is believed to survive only in Iran. While African Cheetah is listed as a vulnerable (VU) species on the IUCN Red List.

ASIATIC LIONS

— According to new research, Asiatic Lions – whose entire population numbering **674** is in Gujarat – co-exist with humans through mutual adaptation, enforced legal protection, economic drivers, and government compensation for livestock, among others.

— The co-existence comes in the backdrop of the geographic range of lions rising by **36 per cent between 2015** and 2020 and population increasing at 6 per cent per annum.

— **Gujarat** is the only home of the Asiatic Lions.

— Asiatic lions are slightly smaller than African lions. Asiatic lions have longitudinal fold of skin running along its belly which is rarely seen in African lions.

— **Conservation status:** Listed in Schedule I of Wildlife (Protection) Act 1972, in Appendix I of CITES and as Vulnerable on IUCN Red List.

GOLDEN TABBY TIGER

— A three-year-old golden tiger named Ava has captured hearts online, becoming a viral sensation and giving tough competition to Moo Deng, the baby pygmy hippo. Golden tiger are also known as 'Tabby tiger' or 'Strawberry tiger'.

— Ava belongs to a rare Bengal tiger variant. They are named so because of the colour variant. They are even rare than white tigers with fewer than 30 golden tigers in captivity worldwide.

— In 2020, one such golden tiger was spotted in Kaziranga National Park, Assam.

CYCLONE FENGAL

— Cyclone Fengal made landfall over Puducherry on November 30. This tropical cyclone was named by Saudi Arabia.

— Landfall is the event of a tropical cyclone coming onto land after being over water. As per the India Meteorological Department (IMD), a tropical cyclone is said to have made landfall when the centre of the storm – or its eye – moves over the coast.

— A cyclone is a large-scale system of air that rotates around the centre of a low-pressure area. It is usually accompanied by violent storms and bad weather.

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— Tropical cyclones are those which develop in the regions between the Tropics of Capricorn and Cancer. They are the most devastating storms on Earth.

— Tropical cyclones have different names depending on their location and strength. For instance, they are known as hurricanes in the Caribbean Sea, the Gulf of Mexico, the North Atlantic Ocean and the eastern and central North Pacific Ocean. In the western North Pacific, they are called typhoons.

K-4 NUCLEAR-CAPABLE BALLISTIC MISSILE

— India has tested the K-4 missile from submarine **INS Arighaat** off the coast of Visakhapatnam.

— It was the first test of the nuclear-capable submarine-launched ballistic missile (SLBM) from a submarine with a range of around 3,500 km.

— Hypersonic missiles, capable of carrying conventional explosives or nuclear warheads, can fly in the range of five times the speed of sound. However, some advanced versions of hypersonic missiles can even fly at the speed of over 15 Mach.

EXERCISE CINBAX

— The inaugural edition of the joint tabletop exercise CINBAX between the Indian Army and Cambodian Army commenced at a foreign training node in Pune.

— The exercise, being conducted from December 1 to 8, comprises 20 personnel each from an Infantry Brigade, from Cambodian Army contingent, and an Indian Army contingent.

NOTRE-DAME CATHEDRAL

— Paris' Notre Dame cathedral is set to reopen on December 7 five and a half years after a devastating fire destroyed its roof and spire and caused major damage throughout.

— Notre-Dame de Paris (Our Lady of Paris), a medieval Gothic masterpiece, is one of the French capital's most beloved and visited monuments.

— The first stone was laid in 1163, and construction continued for much of the next century, with major restoration and additions made in the 17th and 18th century.

FIRST CONSTITUTION MUSEUM

— The country's first-ever Constitution Museum was inaugurated at O P Jindal Global University in Sonipat, Haryana.

— The museum was inaugurated by Lok Sabha Speaker Om Birla and Minister of State for Law and Justice Arjun Ram Meghwal.

— The museum is curated by Anjchita B Nair. It offers audio-visual interactive experiences to the visitors, as well as digital quizzes and a robot gives the visitors a tour of the museum.

— Mini busts of 300 members of the Constituent Assembly are also neatly displayed in the museum. A bigger bust on display is that of B N Rau, a jurist who was instrumental in drafting the Constitution.

ASSISTED DYING BILL

— The Members of the House of Commons in the United Kingdom have voted in favour of whether to legalise the practice of assisted dying in England and Wales.

— Euthanasia refers to the practice of an individual deliberately ending their life, oftentimes to get relief from an incurable condition, or intolerable pain and suffering. Euthanasia, which can be administered only by a physician, can be either 'active' or 'passive'.

— Active euthanasia involves an active intervention to end a person's life with substances or external force, such as administering a lethal injection. Passive euthanasia refers to withdrawing life support or treatment that is essential to keep a terminally ill person alive.

— In 2018, the Supreme Court recognised the legality of 'passive euthanasia' for terminally-ill patients, holding that the 'right to die with dignity' forms a part of the right to life under Article 21 of the Constitution of India.

— Recently, the Union Health Ministry has released a draft of guidelines on withdrawing or withholding medical treatment in terminally ill patients, closing a regulatory gap that left medical professionals in a lurch.

WHITE KNIGHT CORPS

— White Knight Corps: It is a corps of the Indian Army that was established in 1972 to oversee operations in the region south of Jammu and Kashmir's Pir Panjal.

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BUSINESS & ECONOMICS

TRUMP'S TARIFF PLANS COULD IMPACT GLOBAL TRADE — INCLUDING INDIA

During his campaign for the presidential election, Donald Trump had advocated levying a 60 per cent tariff on imports from China, and 10-20 per cent on others. At a talk at the Economic Club of Chicago, he argued that higher tariffs would help facilitate manufacturing in the US, rebalance trade with other countries, and improve government finances. The president-elect has now gone a step ahead, announcing on a social media platform that after being inaugurated in January, he would impose a 25 per cent tariff on all products from Mexico and Canada, and levy an additional 10 per cent on China. The tariffs are expected to be in place ostensibly until the countries clamp down on drugs and illegal immigration. The three countries account for a significant share of goods imports to the US.

The imposition of steep tariffs, which are essentially a tax on imported goods, could possibly disrupt supply chains, become inflationary, raising costs for consumers and business, and have implications for interest rates. In fact, Trump's proposals could end up costing a typical household in the US more than $2,600 a year, as per a study by economists at the Peterson Institute of International Economics. However, the policy of raising tariffs appears to have found favour across both Republicans and Democrats. In 2018 and 2019, during his first administration, Trump had levied tariffs across several product categories. The Tax Foundation, a Washington based think tank, has noted that the Biden administration not only kept most of them in place, but also announced additional hikes. Protectionist impulses now guide the policy choices of many erstwhile advocates of free trade.

India has been excluded from Trump's initial trade salvo. However, in the past, he has called India a "tariff king" and a "very big (trade) abuser", indicating that he may well ratchet up the pressure. India will need to navigate the changing global political and economic environment deftly. The government could leverage bipartisan support in the US for strong ties between the two countries to negotiate with the Trump administration. Alongside, it must move towards making the economy less protectionist, and draw on its political capital post assembly election wins, to push through contentious but necessary reforms. It needs to make the country an attractive investment destination, and take advantage of the opportunity that Trump's trade moves may open up.

EXPERT EXPLAINS: WHY INDIA'S TRADE DEFICIT IS NOT NECESSARILY A WEAKNESS

India's persistent trade deficit — it imports more goods than it exports — is often seen as a sign of weakness of Indian manufacturing. In fact, the deficit reflects not a weakness of Indian manufacturing but India's relative strength in services and its attractiveness as an investment destination.

As long as India retains its relative strength in services and attracts foreign investment, this goods trade deficit will remain. An important implication of these fundamental factors is that for Indian manufacturing to grow faster, it must be driven by domestic demand, not exports.

Foreign investment and current account deficit are two sides of the same coin.

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Let us start with some simple math.

An inflow of funds has to be matched by an outflow or an accumulation of funds. This means that any country that attracts investment (i.e., has a net inflow of funds on the capital account), will necessarily have a current account deficit (i.e., a net outflow on current account), or will accumulate foreign exchange reserves.

This is not a matter of opinion — it is mathematical reality. Capital account inflows will equal the sum of current account deficit and the increase in reserves.

So how should we think about India's current account in the context of the two related variables — capital inflows and reserve accumulation?

Let us deal with capital inflows first. India wants to attract foreign investment (i.e., have an inflow on the capital account), which is desirable as it supplements the domestic savings pool and helps us invest more and grow faster.

What about reserves? Let us start with why we hold reserves.

Reserves are held as a cushion against economic shocks. For example, reserves can be drawn down if an oil shock leads to a spike in the current account deficit.

Given that holding reserves involves a cost, India should keep adequate reserves for emergencies, but not more. A simple way to think about this is that, as a country we are raising funds from foreigners and using part of those funds to build reserves — and we are offering a higher return to foreigners than we are earning on these reserves.

The difference between the return earned by foreigners on their investments in India and the return earned by India on its reserves is the cost of holding reserves.

Let us now go back to our starting point that capital inflows will always equal the sum of current account deficit and reserve accumulation.

Given that we don't need to accumulate much more reserves, the current capital inflows will be equal to the current account deficit. Essentially, capital inflows and current account deficits are two sides of the same coin. When we say that we want to attract foreign investment, we are implicitly saying that we are willing to run an equivalent current account deficit (i.e., be a net importer of goods and services in aggregate).

This current account deficit is, in effect, a feature of an economy that is an attractive investment destination. India has had a very sensible policy of maintaining a current account deficit of ~ 2% of GDP and attracting an equivalent amount of capital flows.

The goods deficit reflects India's relative strength in services.

Once we see the current account deficit as the desirable flip side of foreign investment flows, we can try and understand what determines its composition.

Keep in mind that a current account deficit means that while the country will be exporting some things and importing other things, imports will be higher than exports (i.e., we will be a net importer of goods and services in aggregate).

So what will we export and what will we import?

We will export those things in which we have the greatest advantage and we will import other things (where our advantage is smaller). India's greatest advantage lies in services — consequently, we are a net exporter of services.

However, given that overall we have to be a net importer (of total goods and services), the fact that we are a net exporter of services inevitably means that we are a net importer of goods.

India's manufactured goods exports have been enough to keep the current account deficit at the desired level. This has been achieved by exporting goods where India's advantage is the greatest (over 1/3 of pharmaceuticals consumed in the US are made in India; similarly, India has a solid export base in automobiles and auto components).

In economic theory, this is the notion of comparative advantage (as distinct from absolute advantage). That Indian exports of some goods are smaller than Vietnam's or Bangladesh's only means that India has a greater advantage over these countries in services than it does in these goods. It does not necessarily mean that Indian manufacturing is less productive, in absolute terms, than Vietnam's or Bangladesh's.

It is important to clarify that the above argument — that manufacturing exports are adequate — does not imply that manufacturing cannot grow faster. It merely implies that faster manufacturing growth will depend on greater domestic demand. After all, if there was stronger domestic demand and the current account deficit were to remain stable, the incremental demand would drive greater domestic production.

EXPRESS VIEW: RBI'S DILEMMA— WITH LOW GROWTH, NARROWING CHOICES

Over the past few weeks, several indicators have suggested that the economic growth momentum in the country slowed down sharply in the second quarter. Recently, some companies have spoken about a "softness" in urban demand and a "shrinking" middle segment. The finance ministry had also pointed towards the "incipient signs of strain in certain sectors" and the "moderation in urban demand" in its recent monthly reviews. Data released by the National Statistical Office on Friday shows that the extent of the slowdown has been more severe than what many had expected. The economy grew at just 5.4 per cent in the second quarter, down from 6.7 per cent in the first quarter. This is significantly below expectations — while the consensus among analysts was that growth will be around 6.5 per cent, the RBI had pegged it to be even higher at 7 per cent.

The disaggregated data makes for sobering reading. The mining sector has contracted. Manufacturing has grown at a mere 2.2 per cent, down from 7 per cent in the previous quarter. The construction sector has slowed down, as have the electricity, gas and water supply segments. Even large parts of the services sector — financial, real estate and professional services — have registered slower growth. Both investment activity and private demand have moderated, with the latter in urban areas being possibly weighed down by a combination of high food inflation and subdued real wage growth. In nominal terms, the Indian economy has now grown at 8.9 per cent in the first half of this financial year. Nominal growth was less than 10 per cent last year as well. However, there is a view that the economic momentum will pick up in the second half of the year. Rural demand is likely to improve as the kharif output has been healthy and the outlook for the rabi crop also looks promising. Alongside, government capex is likely to grow at a healthy pace in order to meet its budget target.

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In October's monetary policy committee meeting, the RBI had projected growth at 7 per cent in the second quarter, and at 7.2 per cent for the full year. Its state of the economy report published in the October bulletin had pegged second quarter growth to be marginally lower at 6.8 per cent. Considering that actual growth is 1.4 percentage points lower, it implies that the central bank will now have to revise downwards its growth forecast for the year. So far, resilient growth had provided the monetary policy committee the space to focus on inflation, keeping policy rates restrictive. But with growth slowing down, and inflation still elevated, though there are expectations of prices moderating over the coming weeks, the policy choices before the RBI seem to be narrowing.

WHY INCOME TAX DEPARTMENT HAS INTRODUCED NEW PAN 2.0 PROJECT

The 10-digit alphanumeric Permanent Account Number (PAN) issued by the Income Tax Department is set to have a slew of upgrades – enhancement of the QR code feature for new and old cards, a completely online application process and a merger of all existing identification numbers to make PAN as the common identifier for businesses. Additionally, a "PAN data vault system" will be created for all entities using PAN data, for data protection and cybersecurity purposes.

The Union Cabinet approved the PAN 2.0 Project on Monday to make PAN the "single source of truth and data consistency". With PAN already linked to Aadhaar, it is expected to become a strong source of identification and information for authorities.

Existing PAN cards will continue to be valid under PAN 2.0, as per the FAQs issued by the Finance Ministry on Tuesday. Existing PAN holders need not mandatorily apply for the new card but could upgrade their PAN free of cost. The number or PAN would remain the same. The allotment or update or correction of PAN will be done free of cost and e-PAN will be sent to the registered email ID. For a physical PAN card, the applicant has to make a request along with a fee of Rs 50 (domestic). For delivery of cards outside India, Rs 15 plus postal charges will be charged, the FAQs said.

What is the PAN 2.0 Project?

PAN enables the I-T Department to link transactions such as tax payments, Tax Deducted at Source (TDS)/Tax Collected at Source (TCS) credits and income returns with the department. Essentially, PAN acts as an identifier for the person with the tax department and remains the same once allotted.

Further, TAN stands for Tax Deduction and Collection Account Number, a 10-digit alphanumeric number issued by the I-T Department. TAN has to be obtained by people responsible for deducting or collecting tax at source. It is compulsory to quote TAN in TDS/TCS return, any TDS/TCS payment challan and TDS/TCS certificates.

The PAN 2.0 Project, with a financial implication of Rs 1,435 crore, was approved by the Union Cabinet on Monday. Under it, the existing PAN system will be upgraded and its IT backbone will be revamped, Union Information and Broadcasting Minister Ashwini Vaishnaw said during the Cabinet briefing.

"There were repeated demands from the industry to have a common business identifier. They used to say they don't want different (identification) numbers, a single number would be

beneficial. The project will make efforts to make PAN as the common business identifier. All PAN/ TAN/ TIN will be clubbed under this system," he said.

Currently, PAN-related services are spread across three platforms: the e-filing portal, the UTIITSL portal, and the Protean e-Gov portal. These services will now be integrated into a single, unified portal. "This one-stop platform will handle comprehensively issues/matters related to PAN and TAN... By doing so, the I-T Department endeavours to simplify processes, eliminate delays, and improve grievance redressal mechanisms," the FAQs said.

What are the features of PAN 2.0?

The QR code feature, which began in 2017-18, helps validate the PAN. This feature will continue with some enhancements.

The project also aims to set up a "mandatory PAN data vault system" for all entities using PAN data, including financial institutions, government agencies, and central and state government departments through an online validation service. "The PAN related information is used by many entities such as banks, insurance companies... So, those (entities) who take details of PAN, they will have to keep PAN data safely, mandatorily through the data vault system," Vaishnaw said.

An official statement said the project will enable a technology-driven transformation of taxpayer registration services to improve ease of access and service delivery.

What does it mean for individuals and businesses?

Of the 78 crore PAN cards issued, 98 per cent belong to individuals. A senior Finance Ministry official told The Indian Express that "PAN holders having an old PAN Card without QR code have an option to apply for a new card with QR code. In PAN 2.0, the submission of applications is going to be online (paperless)." Also, PAN 2.0 will help weed out duplicate PANs and minimise instances of one person holding more than one PAN, the Ministry said.

For businesses, this would mean a seamless, common system for filing various tax challans and returns. "In the PAN 2.0 Project, all PAN/TAN related services will be hosted on a single unified portal of ITD. The said Portal would host all end-to-end services related to PAN and TAN like allotment, updation, correction, Online PAN Validation (OPV), know your AO, AADHAAR-PAN linking, verify your PAN, request for e-PAN, request for reprint of PAN card etc.," the FAQs said.

FIVE STATES ARE YET TO PUBLISH DRAFT RULES ON LABOUR CODES: CENTRE

Four of the 28 States and eight Union Territories are yet to publish the draft rules on the Code on Wages passed by Parliament in 2019, while five States have not released the draft rules on the Industrial Relations Code, the Code on Social Security and the Occupational Safety, Health and Working Conditions Code, passed in 2020, the Union Labour Ministry said in Parliament, without naming any.

The Ministry said it was in discussions with the Central trade unions and the States on implementing the Labour Codes.

Maintaining that labour is on the Concurrent List, Union Minister of State for Labour Shobha Karandlage said in the Lok Sabha that after notifying the codes, the Centre had undertaken three tripartite consultations on the draft Central Rules in December 2020 and January 2021.

"As per available information, 32, 31, 31 and 31 States/Union Territories have pre-published the draft rules under the Code on Wages, 2019, the Industrial Relations Code, 2020, the Code on Social Security, 2020 and the Occupational, Safety, Health and Working Conditions Code, 2020, respectively. For the remaining States/Union Territories, several meetings were held for facilitating them to frame their respective rules within the ambit of Labour Codes," she said, adding that meetings were held with the States which were yet to publish the draft rules.

Answering another question on the India Employment Report, 2024, of the Institute for Human Development and the International Labour Organisation, she said the report mentioned that in the ILO's Global Report Trends for Youth, 2022, the worldwide youth unemployment rate was 15.6% in 2021.

TAX CUTS MAY HAVE SAVED ₹3 LAKH CRORE FOR INDIA'S CORPORATES

Taxed at a significantly lower rate following the introduction of the concessional tax regime in 2019, India's largest corporates may have saved over ₹3 lakh crore in tax payments since then. This is in addition to over ₹8 lakh crore in revenue foregone through various deductions granted to companies in the decade since 2012-13 (FY13).

Experts note that while the tax cuts point towards the need to rationalise tax incentives, a decline in corporate tax-gross domestic product (GDP) ratio could limit the government's ability to finance additional development expenditure.

Until 2019, a corporate tax rate of 25% was levied on domestic companies with an annual turnover of up to ₹400 crore. It was 30% for the rest. The new tax regime slashed the rate to 22% as long as the companies forgo certain deductions under the Income Tax (IT) Act. In addition to this, tax rates for new manufacturing companies were lower, provided they fulfilled certain conditions.

Suranjali Tandon, Associate Professor at NIPFP, explains that the new tax regime is indicative of a preference for a "simpler tax system with lower rates" as corporate tax rates have undergone changes at different points before to align with the country's economic priorities.

"However, there is no consensus on the optimal corporate tax rates as this may vary as per economic circumstances and context," she says.

R. Nagaraj, Distinguished Senior Fellow at IIT Bombay, argues that a reduction in corporate tax rates mainly serves the "class interests" of the "business community" — evident in the simultaneous increase in luxury consumption. "This is the standard Laffer curve argument which was popular during the Reagan administration in America. But we do not have any evidence of this working anywhere in the world, especially not in India." To get a sense of the amount saved in taxes as a result of this incentive, data of India's largest companies, those on the BSE 500 index, were considered, which were sourced from the Capitaline database.

While the intent behind such changes was to encourage private investment, create jobs and "establish a globally competitive business environment for certain domestic companies", Prof. Dasgupta says there is little evidence to suggest that tax incentives make businesses more competitive.

Companies also avail tax concessions in the form of deductions under various sections of the IT Act. For instance, tax incentives are granted on donations made to charitable trusts, contributions

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to political parties, expenditure on scientific research or on profits of undertakings set-up in north-eastern States among others. The government calculates the revenue impact of such concessions in the Budget document each year and this is done for a larger database of over 10 lakh companies.

ALL ABOUT THE CENTRAL GOVERNMENT SCHEME TO PROMOTE NATURAL FARMING

The Union Cabinet on Monday (November 25) approved the launch of the National Mission on Natural Farming (NMNF) as a standalone Centrally Sponsored Scheme under the Ministry of Agriculture & Farmers' Welfare. The NMNF aims to promote natural farming in mission mode across the country.

What is natural farming?

The Agriculture Ministry defines natural farming as a "chemical-free" farming system that only uses inputs produced using livestock and plant resources. The ministry plans to implement this first across the districts with high fertiliser consumption.

Is the NMNF a new initiative?

No. The proposed NMNF is an improvement of the Bhartiya Prakritik Krishi Paddhti (BPKP) launched by the NDA government in its second term (2019-24). The initiative was launched under an umbrella scheme of Paramparagat Krishi Vikas Yojna (PKVY). The Centre also promoted natural farming in a five-kilometre belt along the Ganga River under the Namami Gange scheme in the financial year 2022-23.

The NDA's return to power in June after the Lok Sabha elections saw a renewed focus on promoting natural farming, with the government launching the NMNF in the first 100 days. The government decided to upscale the experience gained from the BPKP into a mission mode through the NMNF.

In her Budget Speech on July 23, Finance Minister Nirmala Sitharaman announced a plan to initiate one crore farmers countrywide into natural farming in the next two years. "In the next two years, 1 crore farmers across the country will be initiated into natural farming supported by certification and branding. Implementation will be through scientific institutions and willing gram panchayats. 10,000 need-based bio-input resource centres will be established," she announced.

In his Independence Day speech, Prime Minister Narendra Modi expressed his gratitude to the farmers who had embraced natural farming for taking on "the responsibility of environmental conservation."

How much area has been covered under natural farming so far?

An overall area of 22 lakh hectares has been brought under natural farming to date, with 34 lakh farmers engaged in the practice. This includes 4 lakh hectares under BPKP and 88,000 hectares under Namami Gange. About 17 lakh hectares are covered under various state government initiatives to promote natural farming.

The NMNF mission aims to bring an additional 7.5 lakh hectares of area under natural farming. According to the statement, "In the next two years, NMNF will be implemented in 15,000 clusters in Gram Panchayats, which are willing, & reach 1 crore farmers and initiate Natural Farming (NF) in 7.5 lakh Ha area. Preference will be given to areas having prevalence of practising NF farmers,

SRLM / PACS / FPOs, etc. Further, need-based 10,000 Bio-input Resource Centres (BRCs) will be set-up to provide easy availability and accessibility to ready-to-use NF inputs for farmers.

How is the mission different from the earlier interventions?

The natural farming mission is different from the earlier initiatives in several ways. First, it has a higher budgetary outlay. Second, it targets over one crore farmers. Moreover, it aims to create an ecosystem for sustainable natural farming in the country. It also aims to establish "scientifically supported common standards and easy farmer friendly certification procedures for naturally grown chemical free produce." It also envisages a single national brand for naturally grown chemical-free produce.

According to an official statement, the scheme has a total outlay of Rs. 2,481 crore of which the central government will contribute Rs.1584 crore and the states Rs.897 crore) till the 15th Finance Commission (2025-26).

"Under NMNF, around 2000 NF Model Demonstration Farms shall be established at Krishi Vigyan Kendras (KVKs), Agricultural Universities (AUs) and farmers' fields, and shall be supported by experienced and trained Farmer Master Trainers. The willing farmers will be trained in Model Demonstration Farms on the NF package of practices, preparation of NF inputs, etc. near their villages in KVKs, AUs and practising NF farmers' fields. 18.75 lakh trained willing farmers will prepare inputs like Jeevamrit, Beejamrit, etc. by using their livestock or procure from BRCs. 30,000 Krishi Sakhis/ CRPs will be deployed for awareness generation, mobilisation and handholding of willing farmers in the clusters," it said.

Why a mission on natural farming?

The mission to promote natural farming aims to combat the excessive use of fertilisers.

According to sources, the Agriculture Ministry has identified 228 districts across 16 states—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand and West Bengal—with input (fertiliser) sales above the all-India average (138 kg/hectare) during 2022-23. In contrast, the number of farmers practising natural farming was minimal in these districts. Thus, the ministry will focus on districts with high chemical fertiliser sales (above 200 kg/ hectares), apart from the Namami Gange region (5 kg area) along the main stem of river Ganga.

According to the official statement, "Natural Farming practices will help farmers to reduce input cost of cultivation and dependency on externally purchased inputs while rejuvenating soil health, fertility & quality and building resilience to climate risks like waterlogging, flood, drought, etc."

"These practices also reduce health risks from exposure to fertilisers, pesticides, etc. and provide healthy & nutritious food for the farmers' family. Further, through Natural Farming, a healthy Mother Earth is bequeathed to the future generations. Through improvement of soil carbon content & water use efficiency, there is an increase in soil microorganisms and biodiversity in NF," it said.

WHY INDIA'S 6GHZ SPECTRUM DILEMMA IS AFFECTING PS5 PRO CONSOLE LAUNCH IN INDIA?

The story so far:

Earlier in November, the PlayStation 5 Pro console was released in key markets around the world, but no announcement was made regarding India. On November 8, Sony said, "PS5 Pro will not be available in some countries (which presently includes India) where 6GHz wireless band used in IEEE 802.11be (Wi-Fi 7) has not yet been allowed."

What's the history on WiFi bands?

In India and throughout the world, WiFi has mainly used two key bands of frequency — 2.4GHz and 5GHz. Home broadband users may recognise these frequencies as separate transmissions from the same router — 2.4GHz has limited data bandwidth, but can blanket a larger area with coverage. 5GHz is significantly faster, but covers a shorter distance. The frequencies for the spectrum used by these WiFi bands was de-licensed for indoor and outdoor use separately in India starting in 2002.

This state of WiFi technology remained the same well into the introduction of WiFi 6 in 2020. That technology uses both 2.4GHz and 5GHz frequencies simultaneously, with greater efficiency, resulting in better speeds. But in 2021, WiFi 6E was introduced, splitting the world into two regions: those who allowed the use of 6GHz spectrum, and those that didn't.

What is 6GHz spectrum and what does it have to do with WiFi?

By 2021, several regulatory authorities around the world, including Japan, Mexico, South Korea, Taiwan, United Arab Emirates, the U.K., and the U.S. began de-licensing a third band of spectrum for WiFi. The WiFi 6E standard was introduced that year, allowing the creation of routers that broadcast on this frequency, bringing up theoretical maximum speeds to 9.6Gbps. This relied on the band of spectrum between 5,925MHz and 7,125MHz, known as 6GHz spectrum.

But in several countries, that is not yet the case. India and China have not allowed the use of 6GHz spectrum for WiFi yet. While the International Telecommunications Union (ITU) generally tries to keep wireless frequencies for telecom, WiFi, satellite and other use cases uniform around the world, several countries have not yet agreed on a standard division of the 6GHz band.

Who has the 6GHz band in India, and who wants it?

The 6GHz band is currently with the Indian Space Research Organisation (ISRO) for satellite use cases. However, satellite communications over 6GHz are unlikely to interfere meaningfully with WiFi-like use cases; at any rate, at the World Radiocommunications Conference last year, India and some other countries were able to get an extension till 2027 on what to do with some or all of the spectrum.

Around the world, and certainly in India, telecom operators have expressed intense interest in getting 6GHz spectrum for 5G and 6G, a demand that India may be poised to entertain. Tech companies, such as those represented by the Broadband India Forum — Google, Meta, Amazon, and others — have argued for a U.S.-like allocation for this spectrum to WiFi. Both camps seem to be pushing for the entire 6GHz band to be used for either telecom or WiFi. The government may

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follow the lead of countries like Australia, which have de-licenced half the spectrum, while considering what to do with the other half.

What comes next?

While the 6GHz debate is complex in its own right, it is not entirely clear that the consumer electronics' interests are significantly impacted by India's decision.

Apple and Samsung phones sell in India with the exact same support for 6GHz WiFi, for instance, but the WiFi feature is programmed to avoid connecting to 6GHz spectrum. Presumably, Sony could do the same, by making consoles sold in India incompatible with this band of spectrum until regulatory clarity emerges.

If and when Sony decides that this is worth the work, or if they decide to invest in manufacturing a separate variant of the PS5 with older WiFi hardware, it will release in India.

At any rate, WiFi 7 as a technology does not need 6GHz to work in India. Advances in WiFi technology are based not (just) on newer bands of wireless spectrum, but in greater efficiency and using these bands simultaneously. Even without the 6GHz spectrum, WiFi 7 routers can be sold in India that make the maximum wireless speed faster than any home broadband plans that are even sold here in the first place.

In response to a query from The Hindu, the Department of Telecommunications said that if "a router or device's operating frequency is restricted to ... de-licensed bands, they are permitted to be used in the country."

HYUNDAI, M&M, 6 OTHERS LIKELY TO FACE EMISSION PENALTIES OF RS 7,300 CR

The centre has found out that eight carmakers including Hyundai, Kia, Mahindra, and Honda have higher than mandated fleet emission levels in financial year 2022-23, which could mean penalties of around Rs 7,300 crore.

• The penalty on Korean carmaker Hyundai is the highest, totalling over Rs 2,800 crore, followed by Mahindra (nearly Rs 1,800 crore) and Kia (over Rs 1,300 crore).

• For 2022-23, the Bureau of Energy Efficiency, under the Union Ministry of Power, required car companies of all units sold during the year to achieve India's Corporate Average Fuel Efficiency (CAFE) norms.

—This meant a fuel consumption of not more than 4.78 litres per 100 km and carbon dioxide emissions of not more than 113 grams per km (since it has a direct correlation with the amount of fuel consumed).

• In 2022-23, models and variants of 18 automobile manufacturers were tested at accredited laboratories by simulating actual driving conditions. When the results for a set of cars did not conform to specified CAFE standards, then penalties were calculated for the total number of cars sold in the full year.

• While the Annual Fuel Consumption Compliance Report for 2021-22 is available, that for 2022-23 has been delayed by more than a year and is yet to be published. In 2021-22, all 19 carmakers had complied with emission norms

Do You Know:

• Fleet emission levels refer to the average amount of pollutants, particularly carbon dioxide (CO_2), emitted by all vehicles in a manufacturer's fleet over a specific period. This metric assesses the environmental impact of a manufacturer's vehicles and ensures compliance with regulatory standards aimed at reducing vehicular emissions.

—In India, the Corporate Average Fuel Efficiency (CAFE) norms regulate these emissions.

—These standards set limits on the average fuel efficiency and CO_2 emissions for automobile manufacturers' fleets.

—The Bureau of Energy Efficiency (BEE) monitors compliance with these norms.

—Non-compliance can result in financial penalties, as seen in recent actions where manufacturers faced fines for exceeding emission norms.

• The CAFE norms were tightened in the beginning of financial year 2022-23. The quantum of penalties has become a point of contention between the Centre and the auto industry. Car makers are learnt to have argued that the new and stricter penalty norms came into effect only from January 1, 2023, and therefore calculating penalties on the basis the cars sold in the entire financial year would not be appropriate.

• BEE introduced the CAFE norms in 2017 to regulate fuel consumption and carbon emissions from passenger vehicles. These norms apply to vehicles running on petrol, diesel, liquefied petroleum gas (LPG), compressed natural gas (CNG), hybrids, and electric vehicles (EVs) weighing less than 3,500 kg.

• Carmakers are learnt to have argued that the stricter penalty norms came into effect only from January 1, 2023, and therefore calculating penalties on the basis of cars sold in the entire financial year would not be appropriate.

• Designed to reduce oil dependency and curb air pollution, the CAFE norms push automakers to lower carbon dioxide emissions while incentivising the production of EVs, hybrids, and CNG vehicles, which are less carbon-intensive than cars that run on fossil fuels.

• Initially, non-compliance with CAFE norms, as outlined in the Energy Conservation Act, 2001, later amended in 2010, carried a penalty of up to Rs 10 lakh plus the cost of the excess metric ton of oil equivalent of energy reported. However, in December 2022, the Act was amended to impose stricter penalties.

• Under the compliance rules for CAFE norms, automakers must submit data to the International Centre for Automotive Technology (ICAT) in Manesar by May 31 of each assessment year. ICAT, in turn, is required to compile the data and forward it to the Ministry of Road Transport and Highways (MoRTH) and the Ministry of Power by August 31.

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LIFE & SCIENCE

HOW SCIENTISTS TOOK FIRST ZOOMED-IN IMAGE OF A STAR OUTSIDE OUR GALAXY

For the first time, scientists have succeeded in taking a zoomed-in picture of a star in another galaxy. The star, known as WOH G64, seems to be cloaked in an egg-shaped cocoon and is located 160,000 light years away in the Large Magellanic Cloud, one of the small galaxies that orbit the Milky Way.

The scientists have described their observations in the paper, 'Imaging the innermost circumstellar environment of the red supergiant WOH G64 in the Large Magellanic Cloud', published by the journal Astronomy and Astrophysics last week.

How was the picture taken?

Until now, researchers have been able to take pictures of stars in other galaxies that show them as little more than points of light. However, with the help of the European Southern Observatory's Very Large Telescope Interferometer (VLTI), they have now revealed a detailed image of WOH G64.

VLTI comprises four 8-metre diameter telescopes situated in Cerro Paranal, Chile. It also has an interferometer called GRAVITY that combines the light from the telescopes to achieve the resolution of a much larger telescope, according to a report by The New York Times.

What do we know about WOH G64?

WOH G64 is believed to be the largest galaxy in the Large Magellanic Cloud. The star is around 2,000 times the diameter of the Sun.

The new photo has revealed that WOH G64 is entering the last stages of its life. In recent years, the star has blown off its outer layer, and it is now surrounded by wreaths and arcs of gas and dust.

Dr Jacco van Loon, co-author of the study, told The Guardian, "Massive stars explode with an energy equivalent to the Sun shining for all of its 10 billion years of life… People have seen these supernova explosions, and astronomers have found some of the stars that exploded in older images. But we have never seen a star change in a way that signals its imminent death."

When big stars like WOH G64 exhaust their nuclear fuel which keeps them burning, their cores collapse. Some massive stars collapse directly to form a black hole — a region in space where gravity is so strong that nothing can escape, including light and matter. Others collapse and lead to an explosion called supernova, which produces many elements such as zinc, silver, tin, gold, mercury, lead, and uranium.

MACE IN LADAKH OPENS ITS ONE-OF-A-KIND EYE TO COSMIC GAMMA RAYS

The Major Atmospheric Cherenkov Experiment (MACE) telescope is a state-of-the-art ground-based gamma-ray telescope inaugurated in Hanle, Ladakh, on October 4. Located at around 4.3 km above sea level, it is the highest imaging Cherenkov telescope in the world. It boasts of a 21-metre-wide dish, the largest of its kind in Asia and second-largest in the world.

The facility was built by the Bhabha Atomic Research Centre, the Tata Institute of Fundamental Research, the Electronics Corporation of India Ltd., and the Indian Institute of Astrophysics.

Light comes in a wide range of wavelengths but humans can only see a small portion. In the electromagnetic spectrum, gamma rays have the shortest wavelength and the highest energy, with each light-particle possessing more than 100,000 electron volts. (Visible-light photons have around 1.63-3.26 eV each.)

A strange blue light

Gamma rays are produced by exotic energetic objects in the cosmos, including rapidly spinning pulsars, supernova explosions, hot whirlpools of matter around black holes, and gamma-ray bursts. Because of their high energy, gamma rays are a health hazard. They can damage living cells and may even trigger deleterious mutations in DNA. Fortunately, the earth's atmosphere blocks gamma rays from reaching the ground. Thus, astronomers who want to study objects that emit gamma rays prefer using space observatories — although there are indirect techniques to detect gamma rays with very high energies from the ground.

When a gamma ray from a cosmic source enters the atmosphere, it interacts with molecules in the air to produce a copious shower of electron-positron pairs. As these charged particles travel through the atmosphere at speeds greater than the speed of light in air, they emit a faint blue light, called Cherenkov radiation. This radiation has wavelengths typical of violet and blue light of the visible spectrum and of the ultraviolet wavelength range.

The light is emitted in about a fraction of a second, and the light particles spread out evenly over a vast region on the earth's surface. This region is a suitable place to locate a detector that can collect the photons and study them to indirectly understand the gamma rays. Instruments used for this kind of detection are called imaging atmospheric Cherenkov telescopes (IACTs). The MACE telescope is an IACT.

Every IACT has a light collector and a camera. The size of the light collector determines the minimum energy of gamma rays it can detect. MACE's light collector has 356 mirror panels. Each panel consists of four smaller mirrors arranged in a honeycomb structure. These honeycomb arrangements have been shown to be lighter yet more stable than solid mirrors because they reduce the empty space between segments and increase the total reflective area. The James Webb Space Telescope uses honeycomb-segmented mirrors for this reason.

India has been active in gamma-ray astronomy for more than five decades now. The unveiling of the MACE telescope marked a significant step towards further technological and scientific advancements in the field. Most of MACE's subsystems were also built and designed within the country.

With its advanced capabilities, MACE could play an important role in addressing fundamental open questions in the field of high-energy astrophysics and particle physics, and pave the way for cutting-edge research.

ALL ABOUT PROBA-3, THE ADVANCED EUROPEAN SOLAR MISSION THAT ISRO WILL LAUNCH

The Indian Space Research Organisation (ISRO) will launch the European Space Agency's Proba-3 mission on its PSLV rocket to study the solar corona, the outermost and hottest part of the Sun's atmosphere, from Sriharikota on December 4.

The mission will also attempt the first-ever "precision formation flying", where two satellites will fly together and maintain a fixed configuration in space.

This is the latest solar mission in ESA's Proba suite of missions. Its predecessors Proba-1 (also launched by ISRO) and Proba-2 were launched in 2001 and 2009, respectively. Teams of scientists from Spain, Belgium, Poland, Italy and Switzerland have worked on Proba-3.

What is Proba-3?

Developed at an estimated cost of 200 million euros, Proba-3 has an expected mission life of two years. It will be launched into a highly elliptical orbit measuring around 600 x 60,530 km and have an orbital period of 19.7 hours.

The mission is designed with two satellites that will be launched together, separate from each other and then fly in tandem. They will then form a solar coronagraph, an instrument that helps block out the bright light emitted by the Sun to reveal the objects and atmosphere around it.

What will Proba-3 study?

Due to the corona's temperature, going up to 2 million degrees Fahrenheit, it is difficult for any instrument to observe it closely. However, it is important for scientific study, as all space weather and its associated turbulences — solar storms, solar winds, etc. — originate from the corona.

These phenomena influence space weather and can potentially interfere with the smooth operations of all satellite-based communications, navigation, and power grids on Earth. To study these, Proba-3 will have three instruments onboard:

* The Association of Spacecraft for Polarimetric and Imaging Investigation of the Corona of the Sun (ASPIICS) or the coronagraph. Its field of view is between the Sun's outer and inner corona, a circular belt normally observable during solar eclipse events. The instrument has a 1.4-metre diameter occulting disk mounted on it, to block the Sun's light and facilitate a close-up view of this belt.

* The Digital Absolute Radiometer (DARA) will maintain a continuous measurement of the Sun's total energy output, known as the total solar irradiance.

* The 3D Energetic Electron Spectrometer (3DEES) will measure electron fluxes as it passes through Earth's radiation belts, providing data for space weather studies.

Why is Proba-3 unique?

The two satellites — Occulter Spacecraft (weighing 200 kg) and the Coronagraph Spacecraft (weighing 340 kg) — will mimic a natural solar eclipse. They will manoeuvre precisely in Earth's orbit so that one satellite casts a shadow onto the other.

A naturally occurring solar eclipse allows solar physicists to observe and study the Sun's corona for 10 minutes, across an average of about 1.5 eclipse events per year. Proba-3 will give six hours, equivalent to 50 such events annually, which will help deepen understanding of the Sun's corona like never before.

Both the Occulter and the Coronagraph will face the Sun at all times. They will maintain a formation of a few millimetres and then move to a position where they will be 150 metres apart for six hours at a time.

One satellite will act as a viewing telescope, kept at the centre of a shadow cast by the other satellite positioned 150 metres away. This positioning will facilitate observing the Sun's corona and will be autonomously achieved through precise flight formation.

If done successfully, the Occulter will create an artificial yet stable eclipse, by masking large parts of the Sun. As a result, the Sun's blinding light will get blocked and only the solar corona will be visible to the coronagraph, which will photograph and facilitate studies of the lesser-known features.

How might India benefit from Proba-3?

Proba-3 is being called ESA's technology demonstration mission. The fact that ISRO has been designated to launch the mission demonstrates India's reliable space launch facilities and growing space capabilities. A cost-effective launch is also one of the highlights of the mission.

There is a strong possibility that the Indian solar physicist community will get exclusive access to the Proba-3 data. A few Indian solar physicists have also been involved in conceptualising the scientific goals of this mission along with their Belgian counterparts.

Soon after the launch, India plans to host a meeting with the ESA's Proba-3 team to explore opportunities for using data from Aditya L1, India's first mission to the Sun (launched in 2023) and Proba-3 for collaborative research. This would allow Indians to work towards and contribute to newer scientific advancements related to the Sun.

SIX DECADES SINCE THUMBA LAUNCH, SLEW OF PRIVATE ENTITIES PREPARE FOR FLIGHT

November 21 was 61 years since the birth of the Indian space programme. On this date in 1963, scientists launched a Nike-Apache sounding rocket from Thumba in Kerala. These rockets helped the Indian Space Research Organisation (ISRO) master the solid propellant technology powering India's launch vehicles today. Around the same time as this anniversary, India launched its first satellite onboard a SpaceX rocket even as multiple Indian private sector entities geared up for launches of their own.

Launches of merit

NewSpace India, Ltd. launched the 4,700-kg GSAT-N2/GSAT-20 satellite onboard a SpaceX Falcon 9 rocket from Florida. N2 wasn't launched onboard an Indian launch vehicle because its weight

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exceeded the payload capacity of the country's most powerful rocket, the LVM-3, which can place satellites weighing up to four tonnes in the geostationary transfer orbit (GTO). INSAT-1D was the last such satellite launched from Florida, in 1990.

GSAT-N2 is a Ka-band high throughput communication satellite built by ISRO to enhance broadband services in underserved areas, including the northeast, Andaman & Nicobar Islands, and Lakshadweep. It will also support services like in-flight internet connectivity and the Smart Cities Mission.

The satellite was placed in a GTO with a perigee of 250 km, an apogee of 59,730 km, and at a 27.5°inclination. From here, the satellite will use its thrusters to move to a geostationary orbit at 63° E longitude over the next few days.

Next, ISRO is preparing to launch its PSLV-C59 mission bearing the European Proba-3 mission. The Polar Satellite Launch Vehicle (PSLV) will fly in its extended length configuration (XL), which was last used to launch Aditya-L1 in September 2023.

The twin Proba spacecraft to study the Sun arrived in Chennai on November 6 and will be integrated with the launch vehicle. Liftoff is currently scheduled for 4 p.m. IST on December 4.

India's astronaut-designate Shubhanshu Shukla, who is set to fly to the International Space Station in 2025, is undergoing training at the European Space Agency's European Astronaut Centre. This part of the training is to familiarise astronauts-to-be with the European modules of the space station.

From the private sector

Four Indian private companies are preparing to launch their payloads/satellites into orbit.

Pixxel, which is Indian-American, unveiled 'Fireflies', its six hyperspectral satellites expected to be launched early next year. Each satellite weighs around 50 kg, has a native 5 m spatial resolution, and scans 40-km swaths for data in more than 150 spectral bands. These satellites constitute the first batch in what is eventually expected to become a constellation of 24 satellites. These satellites are capable of providing data that can help detect crop diseases, water-stressed areas, real-time deforestation, and ocean pollution early.

Second, GalaxEye Space is flying its "It's NOT a Satellite, It's Just a Tech Demo" on board the PSLV's Orbital Experimental Module (POEM) platform. This is when the final stage of a PSLV finishes deploying its payload and enters earth orbit, becoming an orbital platform where onboard instruments can run experiments. The Tech Demo will test subsystems of a synthetic aperture radar (SAR).

PierSight Space will also fly a mission on a PSLV POEM called 'Varuna', which will demonstrate a deployable reflectarray antenna and test SAR and aeronautical information service avionics in orbit.

HEX20 will fly its 'Nila' satellite onboard SpaceX's Transporter 13 mission in February 2025. 'Nila' is a 5-kg cubesat that can host different payloads and provide data-processing services. A ground station will be built in Thiruvananthapuram, Kerala, to control and receive data from the satellite.

Catalyx Space's SR-0 satellite launched onboard the third developmental flight of the Small Satellite Launch Vehicle mission re-entered the earth's atmosphere on November 3. The company announced the satellite had achieved all its objectives in its three-month lifespan.

AAKA Space Studio launched India's first Space Analog Mission in Leh, Ladakh, in collaboration with the ISRO Human Spaceflight Centre, IIT-Bombay, and the University of Ladakh. The site was chosen for its similarity to surfaces on the moon and Mars.

One person from AAKA Space Studio will stay in the habitat in Leh for 21 days to test habitat sustainability, life-support systems, and the human experience of isolation.

SatSure is working with the Ministry of Electronics and Information Technology for "automated image feature extraction models for building footprints, roof type, roads, and water bodies among other classes for more than two lakh villages". This is the Indian government's largest programme to map rural property. Drones under the government's 'Svamvita' programme will capture images of 3-5 cm resolution and SatSure will use its machine-learning tools developed for satellite data to extract and classify the relevant features.

Space science updates

India celebrated its full membership of the Square Kilometre Array Observatory (SKAO), an international effort to build the world's most advanced radio telescope in Australia and South Africa. India will contribute cash as well as advanced electronics and engineering for telescope components in exchange for scientific data collected by the telescope.

The first scientific result from the Visible Emission Line Coronagraph onboard the Aditya-L1 spacecraft was published in the Astrophysical Journal Letters.

A team led by researchers at the Indian Institute of Astrophysics, Bengaluru, used data from the coronagraph to accurately predict the time of a coronal mass ejection on July 16. Coronal mass ejections affect satellites in orbit, electricity grids on the ground, and radio communications when they blow past the planet.

Finally, the Departments of Space and of Biotechnology have signed agreements to conduct biological experiments on the forthcoming Bharatiya Antariksh Station. While researchers will be able to conduct experiments on other missions (including the uncrewed Gaganyaan flights), the agreement pertains to experiments onboard the Indian space station.

WHY SATELLITE SPACE JUNK MAY BE BAD NEWS FOR THE ENVIRONMENT

More than 10,000 active satellites are in orbit around the planet today. This number is estimated to shoot up to more than 100,000 by the 2030s, and possibly half a million in the decades to follow.

Most satellites, at the end of their life-cycle, fall to a fiery death through Earth's atmosphere. As they disintegrate, however, they leave all kinds of pollutants in the upper atmosphere. As the number of satellites goes up, so will this pollution. And some scientists are very worried.

Polluting satellites

Daniel Murphy, an atmospheric scientist at the US National Oceanographic and Atmospheric Administration (NOAA), and others presented definitive evidence that "10% of the aerosol particles in the stratosphere contain aluminum and other metals that originated from the burn-

up of satellites, and rocket stages during reentry"('Metals from spacecraft reentry in stratospheric aerosol particles', 2023).

Connor Barker, an atmospheric chemist from the University College of London, and others found that emissions of aluminum and nitrogen oxides from satellite reentries significantly increased from 3.3 billion grams in 2020 to 5.6 billion grams in 2022. Also on the rise were emissions from rocket launches, which leave pollutants such as black carbon, nitrogen oxides, carbon monoxide, aluminum oxide and a variety of chlorine gases ('Developing inventories of by-products from satellite megaconstellation launches and disposal to determine the influence on stratospheric ozone and climate', 2024).

Impact of satellite pollution

While pollution from burnt-up satellites high up in the atmosphere is seemingly a distant concern for humans, it might lead to ripple effects that will change the chemistry of the atmosphere. This is not good news. Life on Earth has evolved over billions of years to adjust to the planet's specific environment, and even miniscule changes could trigger massive chaos on the planet.

Scientists are particularly concerned about the impact of this pollution on the ozone layer in Earth's stratosphere. This layer absorbs up to 99% of ultraviolet rays from the Sun, which would otherwise harm living organisms on Earth's surface.

But pollutants from burnt-up spacecraft are likely already harming it. Aluminum oxide, for instance, is a known catalyst for ozone depletion. This would be major new threat to the ozone layer especially in the light of the success of the Montreal Protocol of 1987, which banned production and emissions of known ozone-destroying chemicals such as chlorofluorocarbons (CFCs), previously used as a common refrigerant.

Murphy also notes many other ways in which spacecraft pollutants might impact the atmospheric composition. He told Science News: "Soot emitted from rocket engines absorbs solar energy, which can warm the atmosphere. Copper and other metals released during the incineration of spacecraft wiring and alloys are known to be powerful catalysts for chemical reactions in the atmosphere. Among other things, those metals could promote the creation of the tiny particles that act as the seeds of clouds."

WHAT YOU DON'T KNOW WHEN YOU SIGN UP ON SOCIAL MEDIA

Do social media users truly understand what they are signing up for? This question might be asked following a curious turn of events at the Bankruptcy Court for the Southern District of Texas in the US. The purchase of the website InfoWars by satirical news outlet, The Onion, has come up against the Elon Musk-owned X, which seeks to prevent InfoWars' accounts on its platform from being included in the sale. The company has cited its terms of services establishing its "superior control over and ownership of all X accounts". Such a clause is by no means unusual in terms of services across social media platforms, but it's little known to users and is rarely enforced.

Terms of services are notoriously hard to comprehend and few people bother beyond clicking "accept", but the question has a larger resonance at a time when social media's role in politics and society is under greater scrutiny. The world has travelled far from the moment in 2004 when MySpace got to one million monthly active users and marked the beginning of social media as it is understood today. In the 20 years since, the misty-eyed view of thriving online communities with unimpeded access to knowledge has come up against harsh realities like depleted attention spans,

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higher levels of anxiety and dis- and misinformation. Highly-publicised cases, like the Facebook-Cambridge Analytica scandal, have revealed how tech companies risk user privacy or knowingly ignore harmful content. Regulators around the world are now taking action — the latest example being Australia's law to ban social media for children below 16. This, even as platforms themselves begin to take proactive measures, like TikTok restricting beauty filters for users below 13 and Instagram's "teen accounts", where parents can manage their children's handles. But concerns about the power of these platforms are not easily allayed: Consider the controversy over Elon Musk's alleged use of X in shaping public opinion in the US presidential election — which is likely to be exacerbated by X's intervention in the sale of the conspiracy theory-driven InfoWars.

The good that social media does cannot be denied. It remains a valuable tool for media and education, amplifying voices that are rarely heard. It has been used to mobilise emergency responses, such as after the devastating 2023 Turkey-Syria earthquake, and can help the vulnerable and lonely make meaningful connections. Yet, its risks cannot be overlooked, and the most effective defence is user awareness, including about the power asymmetry in the relationship with tech companies. This can only be achieved through greater transparency and sustained public conversations that can drive digital media literacy.

TIKTOK'S BAN ON BEAUTY FILTERS FOR UNDERAGE USERS — A BARE MINIMUM

The grim subtext of German fairy tales had it right: When you ask the mirror on the wall to judge the fairest of them all, the answer can open up the darkness within — dipping self-esteem, crippling anxiety or envy. And unlike fairytales, there may not be happily-ever-afters at the end of the ordeal, especially if the mirror happens to be social-media platforms where the metric of beauty is set by algorithms primed to fuel insecurities. Earlier this year, parents in the US had launched a petition against TikTok and YouTube for promoting body dysmorphia among children through the use of AI-generated beauty and wellness influencers. Now, TikTok has announced restrictions on the use of beauty filters by users below the age of 18.

Given the premium placed on appearances, this is a welcome move, even if its effectiveness is reliant on people being truthful about their age on social-media platforms. The toll of dissemblance — hiding one's appearance with filters to look a certain way — and the consequences of harassment or cyberbullying are immense. Study after study has established correlations between social-media usage and mental-health afflictions.

The restriction also reignites the conversation around the ageist, sexist approach to beauty reinforced by airbrushed perfection. And yet, beauty can be a fluid curve that embraces ageing bodies, arthritic limbs, puffy eyes and sagging skin. Maggie Smith became the face of fashion brand Loewe at the age of 88. Zeenat Aman remains sassy at 73, pushing back at the beauty stereotype. For the message to percolate down to youngsters on social media, however, it needs to be a combination of legislature, better role models and parental guidance that helps them negotiate the minefields of online platforms better.

A NEW HISTORY OF THE HUMAN RACE, ONE FOOTPRINT AT A TIME

Fictional sleuths have nothing on real-life palaeontologists. Sherlock Holmes and his ilk have pored over many a footprint, cigarette stub and bit of ash, magnifying glass in hand. The tools of the modern palaeontologist are more sophisticated but essentially of the same order, but the questions they investigate are far more difficult, the answers much less definitive. Each incremental finding tells the world a little more about its past and possibly offers lessons for the

present. Researchers have found, in footprints in the sand in Kenya, a part of the hominid story that speaks to human evolution.

A paper published in the journal Science reveals how, by dating and analysing fossils of footprints in the Turkana Basin — once a muddy lake shore — palaeontologists were able to show that two species closely related to Homo Sapiens co-existed. Members of the two species were at the site days, if not hours, apart. One of them belongs to a genetic line now extinct, the other likely to a Homo erectus individual — the latter are direct ancestors of modern humans. Placing the actors on the scene is, of course, only half the battle. Did they compete, cooperate or just stay out of each other's way? How did they live and what did they think of each other? Footprints can only tell us so much. But they can be an important piece in the larger puzzle.

For too long, "survival of the fittest" was interpreted in the narrowest, most aggressive terms and used to justify every manner of human oppression — from racism to colonialism. Homo sapiens were presented as an aggressive species, which eradicated its "competitors" to emerge as dominant. Over recent years, though, the sleuthing of palaeontologists and genetic evidence has shown that people did not just conquer, they shared and assimilated: Several men and women across the world have both Neanderthal and Denovisian (other "human" species) DNA. Perhaps the people behind the footprints in the sand weren't just competitors. Perhaps they were also neighbours, even friends.

TESTS SHOW THAT MINKE WHALES CAN HEAR HIGH-FREQUENCY SOUNDS

For the first time, scientists have directly measured the hearing range of minke whales, discovering that the species can detect high-frequency sounds as high as 90 kilohertz (kHz), according to a new study, demonstrating hearing sensitivity far greater than previously believed.

The findings suggest that baleen whales—the planet's largest mammals—may be even more impacted by anthropogenic ocean noise than currently recognised but have been excluded from regulatory consideration due to underestimated hearing ranges. There have been concerns about the impacts of anthropogenic noise on marine mammals like high-profile whale stranding events linked to naval sonar noise activity. As a result, substantial progress has been made in developing criteria and thresholds for evaluating impacts on marine mammals exposed to anthropogenic noise.

Although researchers have suggested using behavioural changes, hearing damage, and other physical effects to measure the impact of noise on marine mammals, setting clear thresholds is challenging because different species of marine mammals respond to noise in widely varying and poorly understood ways. Audiograms — graphs illustrating an animal's hearing sensitivity—are essential for identifying the sound frequencies that affect marine mammals.

However, while audiograms are available for at least one representative species in most major marine mammal groups, none exist for baleen whales. To better understand how ocean noise impacts baleen whales, researchers developed a novel catch-and-release method to temporally hold adolescent minke whales (Balaenoptera acutorostrata)for auditory evoked potential (AEP) tests, which estimate hearing sensitivity by measuring electrical signals produced in the brain in response to sound. Leveraging a natural channel between two islands in Norway, and a system of net barriers, the researchers contained two adolescent minke whales making their northward migration.

While it has been assumed that baleen whales are exclusively low-frequency hearing specialists, the authors discovered that minke whales can detect frequencies as high as 45 to 90 kHz—a range much higher than previously believed based upon their ear anatomy and the frequencies at which they vocalise.

UNSAFE HOMES: UN REPORT SAYS 140 WOMEN, GIRLS KILLED BY PARTNER OR KIN PER DAY IN 2023

The United Nations has reported that homes remain the deadliest place for women and girls, with an average of 140 killed each day by intimate partners or family members in 2023. This equates to approximately 51,100 female victims globally, marking a rise from the 48,800 deaths recorded in 2022.

• The increase, according to UN Women and the UN Office on Drugs and Crime, is attributed to improved data collection rather than a surge in killings. However, the organisation emphasised that "no region is excluded" from the pervasive impact of this extreme form of gender-based violence, as reported by Associated Press (AP).

• The report revealed stark regional disparities, with Africa recording the highest number of victims at 21,700 in 2023. The continent also had the highest rate relative to its population, at 2.9 victims per 100,000 people. In comparison, the Americas reported 1.6 victims per 100,000, Oceania 1.5, Asia 0.8, and Europe 0.6.

• In Europe and the Americas, most women were killed by intimate partners, while male homicide victims predominantly died outside the home. "Although men and boys account for the majority of homicide victims, women and girls bear the disproportionate burden of lethal violence in the private sphere," the report noted.

• Nearly 60% of women intentionally killed in 2023 were victims of intimate partner or family-related homicides. Meanwhile, men accounted for 80% of all homicide victims globally.

Do You Know:

• On 18 December 1979, the Convention on the Elimination of All Forms of Discrimination against Women was adopted by the United Nations General Assembly.

—It entered into force as an international treaty on 3 September 1981 after the twentieth country had ratified it.

—The Convention was the culmination of more than thirty years of work by the United Nations Commission on the Status of Women, a body established in 1946 to monitor the situation of women and to promote women's rights.

—These efforts for the advancement of women have resulted in several declarations and conventions, of which the Convention on the Elimination of All Forms of Discrimination against Women is the central and most comprehensive document.

• Among the international human rights treaties, the Convention takes an important place in bringing the female half of humanity into the focus of human rights concerns. The present document spells out the meaning of equality and how it can be achieved. In so doing, the Convention establishes not only an international bill of rights for women, but also an agenda for action by countries to guarantee the enjoyment of those rights.

RETURN TO ACTION

After two extra nights of extended negotiations in Baku, countries finally gave up on bridging their differences and settled on a "roadmap" that has left nearly all developing countries frustrated, developed nations relieved and the planet, still on a perilous path. Officially, the CoP Presidency may claim progress. The text, which was passed early in the morning, included a commitment to triple public finance for developing countries, raising the goal from $100 billion annually to $300 billion by 2035. In addition, countries pledged to work to scale finance from public and private sources to $1.3 trillion per year by 2035. In the world of international negotiations, it is common for countries to bring maximalist demands — asking for the most optimistic outcomes — only to settle for these being scaled back. However, in this case, the gap between what was demanded and agreed upon is striking: the $300 billion figure represents just 20% of the original demand. While $300 billion a year is no small sum, other meaningful concessions would have made its impact far greater. For example, if the funds were predominantly public finance, facilitating the affordable transfer of technology from developed to developing countries, or supporting investments in infrastructure that could help vulnerable populations in the Global South adapt to climate change. Unfortunately, none was included.

Despite decades of scientific progress in developed countries that have rigorously outlined the threat posed by rising carbon emissions, these nations have repeatedly backtracked on their responsibility to support meaningful climate solutions. Moreover, many have failed to discourage developing countries from pursuing fossil-fuel-based development. This shift is likely a reflection of broader geopolitical changes — such as the decline of the globalised world order — and a reduction in public support and political will in the West. As a result, climate action has increasingly been framed within the logic of market competition rather than global solidarity. The recent CoP talks revealed that climate negotiations are now entangled with trade conflicts. In this year's talks, wordplay and political posturing often took precedence over meaningful action. It is possible that next year, there will be a repeat of the drama surrounding the U.S. withdrawal from the Paris Agreement, especially with the impending return of a Trump presidency. Next year's CoP, in Brazil, in the Amazonian city of Belem, will be a symbolic return to the country that hosted the 1992 Earth Summit, where the world first recognised that action, not just talk, was needed to tackle global challenges. As the climate crisis grows more urgent, it is time for the world to revisit that commitment and move beyond empty promises to real, transformative action.

Note: COP29 President was Mukhtar Babayev (Azerbaijan Minister)

KEY TAKEAWAY OF COP29? THE DISMANTLING OF CLIMATE TALKS

The COP29 climate meeting in Baku ended in disappointment last week. On the main issue of finance, developed countries agreed to mobilise only $300 billion for the developing nations every year, a three-times increase over their current mandate of $100 billion but way short of at least $1 trillion that all assessments said was required. Even this nominal scale-up — the needs already run in trillions of dollars — is not supposed to happen immediately but only from 2035.

This is not the first time that the annual climate conference has produced a disappointing outcome. Each one of them in the last 15 years has delivered much below expectations. As a result, the discussions and outcomes of these summits have been almost completely delinked from the requirements of meeting the temperature targets mentioned in the 2015 Paris Agreement. While science says that the world needs to cut its emissions by at least 43% by 2030 from 2019 levels,

all assessments of current actions estimate that global emissions, even in the best-case scenarios, would be barely 2% down by that time.

The underwhelming deal on climate finance reached in Baku might just be the beginning of the unravelling of the climate talks.

Inherently unstable

It is not a surprise that the current international arrangement on climate change has turned out to be this ineffective. It is the only major multilateral system which is completely aligned against the rich and powerful nations. Usually, the rules of any international forum reflect the prevailing power balance, and are mostly in favour of the powerful, as they are the ones who decide on the rules. The climate change architecture, as represented by the 1994 UN Framework Convention on Climate Change (UNFCCC), goes completely against this norm.

In this system, the rich and the powerful — a group of about 40 including the United States and most of Europe — are the main culprits for causing climate change, and the rules are stacked heavily against them. They have been made solely responsible for cutting their greenhouse gas (GHG) emissions, and also for providing money and technologies to the developing countries to help them fight climate change.

These responsibilities were fixed largely in line with the "polluter pays" principle. Since the developed countries were mainly responsible for emitting GHGs over the last 150 years, it was only fitting that they be asked to take responsibility for cleaning it up.

However, equity and fairness are rarely the main drivers of international relations. How this climate structure was allowed to be built up, with the rich and developed countries fully participating in the process, is an interesting and intriguing question that has not yet been settled definitively.

It was not before the 1997 Kyoto Protocol, the precursor to the Paris Agreement, was finalised that the developed world realised that this system could hurt their interests and disrupt the prevailing global power balance. The Kyoto Protocol took forward the principles enshrined in the UNFCCC and assigned specific targets to each of the developed nations in accordance with their "guilt". The targets were to be fulfilled in a specific time frame, failing which they could be penalised.

It is probably the only instance of such an inherently unstable multilateral system which is so completely at odds with the global power structure being created.

Dismantling begins

The efforts to dismantle the system began immediately after the Kyoto Protocol came into effect in 2005 after the requisite number of ratifications. Although the US played a key role in finalising the Kyoto Protocol, the country never ratified it.

The idea was to tear down the structure brick by brick, not in one go. The crucial differentiation between the developed and developing countries in the assignment of climate responsibilities was repeatedly targeted. This was done to ensure that the failure to meet targets could not be blamed only on the developed nations and instead be shared with everyone.

The first attempt to replace the Kyoto Protocol with a new agreement was made in Copenhagen in 2009 but it failed. Developed countries worked for another six years and succeeded in Paris. But even while it was in force, till 2020, Kyoto Protocol targets were completely ignored by all the developed countries. Many of them walked out of the Kyoto Protocol.

The Paris Agreement made fundamental changes to the way climate responsibilities were structured till then. Emission cuts were not the sole responsibility of the developed countries any longer. Everyone had to "contribute" though in a "nationally-determined" manner. There were no assigned targets for developed countries, their emission cuts also had to be "nationally-determined", meaning decided by themselves.

Emission cuts inadequate

As a result, emission cuts have been nowhere close to what is required. The European Union is expected to cut its emissions by around 60% from 2019 levels by 2030 but that is about it. Donald Trump is the favourite whipping boy on climate change issue, but even without him the US has been the biggest laggard. Despite the much-touted Inflation Reduction Act, brought in by Joe Biden administration, the US is only aiming for a 50-52% cut by 2030 from 2005 levels, which translates to about 45% from 2019 levels.

If the world as a whole has to reduce its emissions by 43% by 2030 from 2019 levels, equity and fairness demand that the US and EU should have been aiming for about 80-90% reductions.

The sharp distinction between developed and developing countries on emission cuts was broken by the Paris Agreement. But developed countries were still solely responsible for mobilising finance and transfer of clean energy technologies. These are also getting targeted.

Dilution of finance responsibility

The developed countries argue that the scale of finance requirements has increased manifold, and many other countries have grown rich in the last two decades, so they must also be asked to contribute to climate finance. The first attempt to expand the contributor base happened in Paris itself but did not succeed.

In Baku this year, expansion of contributor base was one of the core issues being discussed as part of the finance negotiations, and some criteria for roping in more countries were suggested. But the developing countries managed to thwart it again. Essentially, China, which was a target of the expansion effort, put its foot down.

In the bargain, the developed countries limited the quantum of climate finance to be raised by them — $300 billion and no more.

The dismantling of the international climate structure has been a continuous process. The dilutions on emissions cuts and finance are just two examples. Erosion has been across the board, leading to a steady decline in trust of the developing countries.

But it is still the only multilateral forum where tiny countries like Tuvalu or Marshall Islands have a voice, and an influential one at that. These countries also benefit from some climate money flowing to them. It is not enough but better than nothing at all.

The climate talks would possibly continue to have some limited utility for some more time, but its effectiveness as a global forum to fight climate change is severely diminished.

HOW SUSTAINABLE IS INDIA'S PATH TO NET-ZERO WITH 45 YEARS LEFT?

Every year, climate action draws significant attention in the months leading up to the United Nations' annual meeting of the Conference of the Parties (COPs). But the outcome of the 2024 U.S. presidential election will likely have a greater impact on the planet's climate future than COP-29 itself, illustrating an important challenge in combating climate change: operationalising global cooperation towards a common cause even when national interests don't align with it.

For example, an economically developed country with sufficient resources per capita may not find it necessary to change course — whereas a populous and developing country like India will. A few COPs ago, India committed to achieving net-zero carbon emissions by 2070. Since then, it has implemented several policies while others are in the works to support this transition. It is widely acknowledged that this journey will not be without challenges, especially financial ones. However, other resource constraints such as land or water availability also matter, limiting the choices available for a sustainable long-term pathway for India.

Why net-zero at all?

With each passing day, climate change is becoming more evident. The scientific consensus is that to avoid devastating and irreversible consequences, the world must keep the global average annual surface temperature rise to within 1.5 °C above pre-industrial levels. The current increase is at least 1.1 °C over that in 1880.

The Sixth Assessment Report of the U.N. Intergovernmental Panel on Climate Change estimated that from 2020, the remaining (cumulative) global carbon budget for a 50-67% chance of limiting temperature rise to 1.5 °C is 400-500 billion tonnes (Gt) of CO_2. Currently, annual global emissions are around 40 $GtCO_2$.

This means net global emissions must drop drastically to stay within the carbon budget. Several countries have announced net-zero targets, but we also really need a sharp decline in total emissions.

Is net-zero equitable?

The developed world, having caused the problem of climate change in the first place, is expected to lead this transition and reach net-zero emissions well before 2050, allowing more time for developing countries to balance their development goals with climate action. These expectations aren't being met, however.

Developed countries are also expected to help finance climate action, but this hasn't materialised at the required scale either. Developing countries, especially those that are small islands, are bearing more than their fair share of the brunt of climate change.

So overall, neither climate change nor climate action is currently equitable. COP-29 is expected to build consensus on the level of financing required.

India's per-capita emissions are among the lowest in the world. However, according to the World Inequality Database, the per-capita emissions of the richest 10% are 20-times greater than that of

the poorest 10% and in absolute terms almost half of the country's total. Climate change more severely affects the economically weaker sections.

India's size and diversity mean it's a country of countries, and some of them are more polluting than others vis-à-vis the climate. Importantly, India lacks the carrying capacity to support the developed world's lifestyle standards for its entire population. If it should, India will run into significant food shortage due to groundwater depletion by the 2040s, extreme heat stress in urban areas due to the ever-increasing vehicular pollution and AC use, irreversible biodiversity loss due to non-ideal land-use changes encroaching on habitats, etc.

India's lifestyle aspirations could easily become unsustainable in the long run, jeopardising our access to basic needs.

A new consumption corridor

In a scenario where consumption rises unchecked and India electrifies all end-use applications, the power demand could increase nine- to ten-fold by 2070. Meeting it entirely via renewable energy will require more than 5,500 GW of solar and 1,500 GW of wind, up from the current 70 GW and 47 GW, respectively.

This target is achievable if India's only priority is to expand renewable energy generation capacity. But if India is to maintain food and nutritional security, increase forest cover, and preserve biodiversity as well, these energy targets will become very challenging. By modelling land-use change dynamics over time, the authors have found going beyond 3,500 GW solar and 900 GW wind will demand considerable land trade-offs.

In sum, India has a tough balancing act to pull off: availing good quality of life to a large share of its population (which has significant material and energy implications) while working towards its climate adaptation and mitigation goals.

To this end, it is important to recognise the pitfalls of economic models. For example, the environmental Kuznets curve hypothesises that beyond a threshold, economic growth can be decoupled from carbon emissions. In reality, even the richest countries haven't achieved this decoupling (other than by shifting their emissions to poorer countries). This is why it is in our best interest to not aspire to achieve the lifestyle standards of the west.

Instead, we need to envisage a long-term strategy incorporating 'sufficiency consumption corridors', with a floor well suited to meeting our developmental goals and a ceiling of excess that will help avoid unsustainable growth. Equally, if not more, important are demand-side measures to help maintain this corridor of consumption that will keep us on a sustainable pathway.

Our power consumption here could increase six- or sevenfold by 2070.

Demand and supply measures

Some of these demand-side measures include the use of better construction materials and passive design elements to provide thermal comfort that doesn't require air-conditioning, energy-efficient appliances, public and/or non-motorised transport within urban areas and railways for intercity travel, local products to reduce the demand for long-haul freight, mindful dietary choices, and alternative fuels in industries in addition to some electrification.

On the supply side as well, India needs to further decentralise energy production (including by the use of rooftop solar cells and of solar pumps for agriculture). Finally, it should continue to expand its nuclear power generation capacity to diversify its energy mix and to complement a grid becoming more dependent on intermittent energy sources. Nuclear power could also offer a precious low-carbon baseload energy and help the government effectively phase out the national economy's dependence on fossil fuels.

As the world trundles towards its net-zero and other climate-related targets, the leeway for governments to miss some of them or postpone their achievement also shrinks. Of course some things are out of our control — for example who becomes the U.S. President — but the things that we can we must, before we cannot.

A PRIMER ON PLASTIC POLLUTION TREATY TALKS

A last round of negotiations on a legally binding treaty to address the global scourge of plastic pollution has opened in Busan, South Korea. National delegations still have a lot to hammer out before there is a treaty. Most contentious is whether there will be a limit on the amount of plastic that companies are allowed to produce.

Led by Norway and Rwanda, 66 countries plus the European Union say they want to address the total plastic on Earth by controlling plastic design, production, consumption and what happens at the end of its life.

Some plastic-producing and oil and gas countries, including Saudi Arabia, vigorously oppose such limits.

Global plastics production is set to reach 736 million tons by 2040, up 70% from 2020, without policy changes, according to the Organisation for Economic Co-operation and Development. Negotiators must also decide whether the treaty will reduce or eliminate single-use plastics. They'll have to resolve whether to end the use of hazardous chemicals in plastics and whether these steps will be mandated or merely encouraged. There are some things many countries agree on. They want provisions in a treaty to promote the redesign of plastic products so they can be recycled and reused. They want to invest to better manage plastic waste. They want to increase recycling rates and help waste pickers transition to safer jobs. They agree there needs to be a mechanism to help countries pay for anything required of them.

Graham Forbes, who is leading a Greenpeace delegation in Busan, said his group could support an agreement that puts sensible guardrails in place to reduce the amount of plastic produced, eliminates toxic chemicals and protects people from the uncontrolled use of plastics. That's achievable, but will take political leadership and courage not seen yet in earlier negotiations, he added.

Frankie Orona, executive director of the Texas-based Society of Native Nations, said they demand a treaty that tackles the root causes of the crisis rather than just managing plastic waste.

"We must seize this moment and leave a legacy we can be proud of, with a non-toxic sustainable future for all children and our children's children," he said. Industry leaders want an agreement that prevents plastic pollution by redesigning plastics to be reused, recycled and remade into new products. They say this will keep the materials in circulation and out of the environment.

Company executives said they'll support a treaty that recognizes plastics' benefits to society, while ending pollution. "I would hate to miss this opportunity because we get fixated on issues that divide us rather than unite us in this purpose of ultimately addressing the issue of plastic pollution," said Steve Prusak, president and CEO of Chevron Phillips Chemical Company. "It's a really critical time. We're really hopeful that what we get out of the meetings will lead to practical, implementable policies and harmonization across the globe."

Do You Know:

• India contributes to a fifth of global plastic pollution, according to a study published in the journal Nature in September. It accounts for 20% of the world's global plastic pollution with emissions of 9.3 mt, which is significantly more than the countries next in the list — Nigeria (3.5 mt), Indonesia (3.4 mt) and China (2.8 mt), the study said.

• India has made it clear that it does not support any restrictions on the production of polymers. Any restrictions are beyond the mandate of the UNEA's resolution adopted at Nairobi in 2022, according to India. The country has also sought the inclusion of financial and technical assistance, and technology transfer in the substantive provisions of any final treaty.

• On the exclusion of harmful chemicals used for plastic production, India has said that any decision should be based on scientific studies, and the regulation of such chemicals should be regulated domestically.

• India banned the use of single-use plastics covering 19 categories in 2022. However, the country has said that a decision on the issue of including certain plastic items for phase-out in the final treaty should be "pragmatic" and "regulation should be nationally driven taking into account national circumstances."

IN BUSAN, INDIA SAYS IT WILL NOT BACK 'USE' OF PLASTIC ALTERNATIVES

While India may have banned single-use plastic in 2022 and called for employing "sustainable" alternatives, the nation has struck a contradictory note at the ongoing UN-led Global Plastic Treaty negotiations here.

During formal submissions on Thursday, India said that while it "encourages the research, innovation, and development of sustainable alternatives and non-plastic substitutes", it would rather not support the "use" of these products, technologies, and services.

India has pushed back against a suggestion by the Chair of the Intergovernmental Negotiating Committee (INC-5) to "reduce the use of primary plastic polymers and associated chemicals of concern in plastic products". Chemicals of concern are used in making goods but which are associated with harm.

Semantics at play

While the reasoning behind India's stance was not spelt out, these submissions are not cast in stone. Sources privy to the negotiations told The Hindu that the word "use" smacked of irritation at being told what to do.

While India's national stand was against plastic waste and pollution and promoting alternative, sustainable materials, India would not allow itself to be "pushed into using" certain products or materials, they said. However, wording could change and depending on how the negotiations

progressed, more conciliatory terms could be considered, the sources said. Single-use plastics are only a subset of the wide variety of plastics made from polymer, and different grades of plastic lend themselves to varying degrees of recycling.

In its multiple submissions on Thursday, India stressed that any final agreement on addressing plastic pollution should not contravene other multilateral agreements; should respect "national priorities, capabilities and priorities and right to development"; and "developing countries must get financial and technical assistance including technology transfer in line with the principle of common but differentiated responsibilities". The latter is a principle derived from climate negotiations, where developed countries, which are counted as responsible for emitting the bulk of atmospheric carbon, are asked to pay up for minimising future global emissions.

Plastic alternatives

There is little clarity on whether sustainable alternatives to plastic exist. While India has, on paper, allowed the use of "biodegradable" and "compostable" plastic, lack of clarity on whether such plastic is actually degradable and whether compostable versions are being composted has hindered their widespread adoption. Prime Minister Narendra Modi has frequently worn jackets made from recycled PET bottles and spoken about the benefits of doing so.

An investigation by the Centre for Science and Environment estimates that since 2022, nearly 24 million tonnes of plastic packaging has been introduced into India with a mechanical recycling capacity of only 9.8 million tonnes. Of the 15 million tonnes of plastic that are used in consumer products and become waste within a year, only about 20% is collected. While this is not a uniquely Indian problem, the inability to manage plastic waste after it is used as a product has led to calls, such as in the INC negotiations, to check the production of plastic itself.

The INC-5 Chair, Luis Vayas Valdivieso, before the start of negotiations on Monday, presented a text, called a "non paper", that laid out a reference document containing 32 "Articles" dealing with multiple dimensions of plastic waste, pollution, and curbing sources of production.

While countries are largely on board, there are disagreements. China, India, Russia, Saudi Arabia, Iran, Iraq, and the U.S. see the cessation of plastic production as potentially disruptive, so there has been pushback, though this is nuanced and varies country by country. The net result is that every sentence in the 18-page document is contested, with countries demanding their own modifications.