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THE OLIVE BRANCH EFFECT OF THE BEIJING ACCORD

Talmiz Ahmad is a former Indian Ambassador to Saudi Arabia, Oman and the United Arab Emirates

Just over a month after the Beijing Accord restored ties between Iran and Saudi Arabia, the regional landscape is witnessing not war, death and destruction but ministers and diplomats dashing from one capital to another to discuss initiatives to promote political and economic cooperation.

The Foreign Ministers of Iran and Saudi Arabia have met in Beijing to discuss the details of mending their relations — opening embassies, operating direct flights and facilitating issue of visas. Officials of both countries have since gone to the respective capitals to reopen their diplomatic and consular missions that have been shuttered for over seven years.

Saudi and Omani diplomats have been in Sanaa to discuss the terms of a ceasefire in Yemen. And, the Syrian President, Bashar al-Assad, isolated for a decade, has been a welcome guest in Oman and the United Arab Emirates, while the Syrian Foreign Minister, Faisal Mekdad, has visited Egypt and Saudi Arabia.

Truce in Yemen

Yemen is an early test-case for the resilience of the Saudi-Iran accord. The Saudis need an early exit from their costly Yemeni misadventure and want Iran to facilitate this by ending military supplies to the Houthis. But the kingdom is also aware that direct talks with Houthi leaders are essential for any peace process to move forward.

In early April, it was reported that the terms of a truce have been finalised between the Saudis and the Houthis: a ceasefire, an exchange of prisoners, the reopening of Sanaa airport, free access to Hodeidah port, the lifting of the blockade of Taiz by the Houthis, and the reunification of the Central Bank and payment of salaries to government employees from the oil revenues. These have been contentious issues in the past; clearly, the Saudi side has made major concessions to obtain the truce. Once the truce holds, the second stage of negotiations will cover: withdrawal of all foreign troops, the shape of the new political order, and the affirmation of a unified state. These discussions will be an intra-Yemeni matter. But, given the number of political groups in the country and the deep divisions between them on ideological, political, tribal and sectarian lines, it will be a formidable challenge to obtain agreement on these issues.

Again, as of now, it is unclear what role the United Arab Emirates (UAE) will play in the peace process, given that it controls several Yemeni ports, the strategically important islands of Perim, at the Bab al Mandab, and Socotra, in the Gulf of Aden, and supports the separatist Southern Transitional Council based in Aden.

However, the mood in Yemen is one of cautious optimism; a Houthi spokesperson has said that "an atmosphere of peace hangs over the region".

The accommodation of Syria

The earthquake that devastated Turkey and Syria in early February this year encouraged diplomatic engagements with Damascus, which have

accelerated after the Saudi-Iran accord. Soon after the earthquake, Mr. Assad received delegations from Lebanon, Jordan and the UAE, spoke to the leaders of Bahrain and Egypt, and visited Oman on February 20.

After the accord that brought together the two countries that had been on opposite sides in the Syrian conflict, Mr. Assad visited Russia and the UAE, signalling the end of Syria's political isolation over 10 years. In Abu Dhabi, the UAE President, Sheikh Mohammed bin Zayed Al Nahyan, welcomed Mr. Assad by saying that it was "time for Syria to return to the Arab fold".

Syrian Foreign Minister Mekdad's visit to Cairo in early April, was the first such visit in a decade; this was followed by a visit to Jeddah. Saudi Arabia is expected to invite Syria to attend the Arab League summit in Riyadh in May, thus completing Syria's political rehabilitation.

Russia's principal ongoing effort is to reconcile Syria and Turkey: but further engagement is proving difficult as Syria insists on full Turkish military withdrawal from northern Syria. Substantial interactions are expected after the Turkish elections on May 14.

An emerging regional order?

The (now former) United States President, Barack Obama, in March 2016, in an interview with the Atlantic magazine, had urged Saudi Arabia and Iran "to find an effective way to share the neighbourhood and institute some sort of 'cold peace'". Ironically, in these hectic diplomatic interactions across West Asia, the U.S. is on the sidelines, often as a disgruntled observer. Clearly, the region has shrugged off the U.S. yoke and is taking foreign policy decisions independently of American wishes — the Beijing Accord illustrates this most dramatically.

Saudi Arabia has become a "dialogue partner" of the Shanghai Cooperation Organisation and wants membership of BRICS. It will continue to buy weapons from the U.S., but is also diversifying its suppliers; it has bought ballistic missiles from China and has recently purchased Chinese technology to manufacture its own missiles. Saudi Arabia and Russia remain solid partners in the "OPEC +" conclave to manage oil production and prices.

Iran already has substantial defence, energy, economic and logistical connectivity ties with Russia and China — the three countries carried out another joint naval exercise in March. Iran has a central place in the Belt and Road Initiative, and is working with Russia to close the small gaps in the 7,200-km International North-South Transport Corridor that links Moscow with the western coast of India.

These developments presage two scenarios: one, a West Asian cooperative order founded on diplomatic engagements among regional states. This will in turn be part of a larger order, embracing Eurasia and the Indian Ocean, that is defined by multipolarity and encourages regional states to pursue their interests through diverse interactions and alignments. China can be expected to be at the centre of much of this diplomatic activity.

SC SLAMS SECTIONS OF SPECIAL MARRIAGE ACT REQUIRING PRIOR NOTICE

The Supreme Court on Thursday said provisions of the Special Marriage Act which mandate a 30-day notice of intent to marry is steeped in patriarchy and expose vulnerable couples to an "invasion" by society.

"The very object of the Special Marriage Act is to protect couples. But these provisions lay them open to invasion by society, by District Magistrates and Superintendents of Police," Chief Justice Chandrachud observed orally.

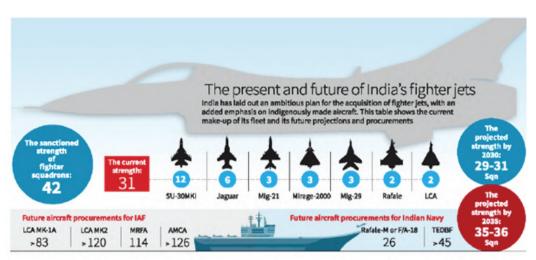
The Bench, including Justices S.K. Kaul, S. Ravindra Bhat, Hima Kohli and P.S. Narasimha, are hearing petitions to legally validate same-sex marriages by allowing them to be conducted under the Special Marriage Act of 1954. Senior advocate A.M. Singhvi and advocate Shadan Farasat said the mandate

of prior and open notice of the intent to marry was anathema to privacy, dignity and personal autonomy and choice.

Senior advocate Raju Ramachandran said these provisions were "retrograde and obnoxious". He said how one of the provisions required fresh notice of intent to be put up in the public domain if the marriage was not solemnised within three months

In a separate portion of the day-hearing, Chief Justice Chandrachud referred to how domestic abuse in heterosexual marriages could have a psychological impact on children. The government had conveyed its anxiety about the psychological impact living with gay or lesbian parents would have on children.

INDIA'S FIGHTER JET CONUNDRUM



The Indian Air Force is trying to keep up its strength of fighter squadrons as its fleet struggles with the gradual phase-out of existing jets as well as delays in the order and procurement of new jets. It is also placing much hope in indigenously manufactured aircraft

Against the sanctioned strength of 42 fighter squadrons, we are today at 31 squadrons which won't go up in the next decade, but on the contrary can go further down by 2029, an Indian Air Force (IAF) representative informed the Parliamentary standing committee on defence as per a report tabled in Parliament last month. This sums up the conundrum faced by one of the world's largest Air Forces in modernising its fleet which has been beset with unending delays in procurement.

"As far as going from 31 to 42 squadrons, I will not be able to say by when it can be accomplished", the representative added noting that they have been trying for the past many years to move forward, but there are certain procedures that have to be followed. If what has been ordered is delivered, and the case for 114 Multi-Role Fighter Aircraft (MRFA) has progressed, then by 2030 we can be between 29 to 31 squadrons, the IAF rep said assuring that it will not go below that. The bulk of the heft to arrest the drawdown and ensure it doesn't fall below 29 squadrons rests on the 83 Light Combat Aircraft (LCA)— MK1A, LCA-MK2 and MRFA. The decision on MRFA is essential to arrest this drawdown, the House Panel was informed.

Phase-outs and orders

It must be noted that of the 31 squadrons at present, the three Mig-21 squadrons will be phased by 2025. Also, the Jaguars, Mirage-2000s and Mig-29s will begin going out by the end of the decade. For instance, by 2027-28 the first of the MIG-29s, inducted in the late 1980s, will start going out and by early 2040s, when most of these types will be phased out, some of the earlier batch of SU-30s will also start going out.

The IAF has in total contracted 272 SU-30s. A deal to procure 12 additional SU-30MKIs to replace the ones lost in accidents as well 21 additional MIG-29s from Russia has been stuck, though both IAF and Russian officials state that it has only been delayed but is on track. India has an ambitious plan lined up for the acquisition of over 500 fighter jets, a bulk of them to be indigenously designed and manufactured, with a majority of them being for the IAF. However, these are at various stages of development. Their manufacturing and timely deliveries are critical. Speaking at an event in October 2022, IAF Chief Air Chief Marshal V. R. Chaudhari conceded that even with the LCA-Mk1A, LCA-Mk2 and the MRFA "we will still be at 35-36 (squadrons) by middle of next decade."

Apart from the new inductions planned, the IAF is confident that increasing the low availability rates of Su-30 and other fighters in service will offset some of the shortfall in the interim. However, that could be potentially impacted due to the Ukraine war, which has already affected payments to Russia for deals underway as well as delays and uncertainty in timely supply of spares for equipment in service.

Indigenous fighter ecosystem

The LCA which is the fulcrum of the indigenous jet development programme, originally intended as a Mig-21 replacement, has seen a series of delays and has now come back on track. The LCA achieved Initial Operation Clearance (IOC) in December 2013 and Final Operational Clearance (FOC) in February 2019. The IAF had earlier signed two contracts with Hindustan Aeronautics Limited (HAL), for 20 IOC configuration aircraft including four IOC trainers on March 31, 2006 and for 20 FOC configuration jets along with four trainers on December 23, 2010. On this, the IAF representative noted that they were supposed to get the 40 LCA from HAL much earlier but they are getting them now. Even now, we are two aircraft short of 40, the representative noted.

Two decades since the first flight, in February 2020, the Defence Ministry signed a ₹48,000 crore deal with HAL for 83 LCA-MK1A. The HAL officials said the project is on track to begin deliveries from February 2024. HAL will be delivering the first three aircraft in 2024 and 16

aircraft per year for the subsequent five years, the Defence Ministry has said. Last month, HAL inaugurated the third LCA assembly line, with the need now being to ramp up production rate.

In addition to the LCA-MK1A, an even more capable and a larger LCA-MK2, which received sanction from the Cabinet Committee on Security (CCS) in September 2022 at a total cost of ₹9000 crore, is expected to be ready for production by 2027. Moreover, the fifth generation Advanced Medium Combat Aircraft (AMCA) is awaiting CCS sanction, the development of which would take 10 years after that, according to Dr. Girish S. Deodhare, Director General of Aeronautical Development Agency (ADA). The project cost of AMCA is estimated to be around ₹15,000 crore.

The LCA-MK2 will be similar to the Mirage-2000 in terms of capability and will be an important fillip as several jets currently in service begin going out. There is also a Twin Engine Deck Based Fighter (TEDBF) on the drawing board for the Navy's aircraft carriers. Dr. Deodhare had said that they are looking at six squadrons of LCA-Mk2, seven squadrons of AMCA and upto 100 TEDBF. At Aero India, HAL officials said that they expect an additional order for upto 50 LCA-Mk1A. A squadron typically has 18 aircraft. The TEDBF is expected to take first flight by 2026 and be ready for production by 2031. Speaking on the sidelines of Aero India, Navy Chief Adm R. Hari Kumar said that they may get upto 45 TEDBF by 2040. For the Navy, a decision for 26 carrier based fighters is expected shortly, a contest between Boeing F/A-18 E/F Super Hornet and the Dassault Aviation Rafale-M.

The other critical programme, the MRFA, is a reincarnation of the earlier Medium Multi-Role Combat Aircraft (MMRCA) contest for 126 jets. The MMRCA began when the Request for Information (RFI) was issued in 2007 and dragged on for a decade only to end up in knots and give way to the emergency procurement of 36 Rafale jets, earlier shortlisted under the MMRCA, under a €7.87 billion deal with France. The RFI for 114 MRFA was issued in April 2019 to global aircraft manufacturers but there has been no progress and the project is yet to receive the Acceptance of Necessity (AoN), the starting point of the procurement process. Given the huge budgetary outlays committed for the indigenous programmes, it has to be seen how the finances for the MRFA, which involves the manufacturer to set up plant in India, would be managed.

Evolution of the LCA

While the LCA project did see long delays, it has also evolved in tune with the changing technological requirements. It was conceived in the 90s', but what the IAF is flying today is very different from what was actually conceived at that point of time. According to the IAF, what was envisioned in the beginning and what we are flying today are two different architectures. "The one we are flying today is called federated architecture. If I can use the word, it is, plug and fly. You can integrate any new weapon or any new system much easily now", the IAF rep said. Further, the House panel was informed that as far as avionics, airframe and other parts are concerned, we are very close to where the world is, except for some technologies like actuators. which are undergoing flight testing at the moment, according to the IAF. Also, critical technologies like flyby wire are not shared by anyone and were developed indigenously over time.

Stressing on indigenisation, the Air Force submitted before the standing committee, "If we keep buying them from the open market in the world, we will never become self-reliant. So, we need to give a push to our own industry also. We need to hold their hands and Air Force is committed towards that."

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SC'S RULING OF 2018 WAS A 'RAINBOW OF HOPE'

Chief Justice of India D.Y. Chandrachud on Thursday said the moment the Supreme Court gave a "rainbow of hope" to the LGBTQIA+ community by decriminalising homosexuality in 2018, it had implicitly contemplated that "stable, marriage-like relationships" could exist between same-sex persons who do not treat their bond as "chance encounters".

"The moment we said homosexuality is no longer an offence under Section 377 [of the Indian Penal Code], we necessarily contemplated that there could be a stable, marriage-like relationship between two persons who do not treat these as chance encounters but as something more than that... That for them it is not just a physical relationship, but something like a stable emotional relationship," Chief Justice Chandrachud observed during the third day of the Constitution Bench hearing of petitions seeking legal recognition of same-sex marriages.

The government had argued in an affidavit that the court had only decriminalised sexual intercourse between same-sex persons in its 2018 judgment in the Navtej Singh Johar case, and not legitimised this "conduct". The court, while decriminalising homosexuality, had never accepted same-sex marriage as part of the fundamental right to life and dignity under Article 21 of the Constitution. The petitioners have sought a broader interpretation of the Special Marriage Act of 1954 by making it gender-neutral and read the term 'spouses' into the heterosexual usages of 'man' and 'woman' in the law.

Chief Justice Chandrachud said Parliament's intention behind introducing the 1954 Act was to open up an avenue for people who were not falling back or relying on the diktats of their respective personal laws to get married.

Justice S. Ravindra Bhat described the 1954 Act as an "all-enfolding legislation". "There was also a factor of addressing endogamy, which we cannot ignore," Justice Bhat said.

"In the last 69 years, our law has evolved to recognise the fact when you decriminalise homosexuality, you also realise that these are not just one-off relationships. That these are also comprehensive and stable relationships. Therefore, by decriminalising homosexuality, we have not just recognised fleeting relationships between consenting adults of the same gender, we have also recognised implicitly the fact that people who are of the same sex would be

In the last 69 years, our law has evolved to recognise the fact when you decriminalise homosexuality, you also realise that these are not just one-off relationships. That these are also comprehensive and stable relationships D.Y. CHANDRACHUD Chief Justice of India

By decriminalising homosexuality, the court says it contemplated that 'stable, marriage-like relationships' could exist between same-sex persons who do not treat their bond as 'chance encounters..... That for them it is not just a physical relationship, but something like a stable emotional relationship'

in stable relationships," Chief Justice Chandrachud said.

Justice Bhat indicated that the "concept" of marriage was not cast in stone.

The court's remarks serve as a counter to the arguments of the government that the existing concept of marriage as a heterosexual institution has the sanctity of law and religion. The Centre has warned that legal recognition of same sex marriage would "seriously affect the interests of every citizen".

"The concept of marriage transcends contemporary understanding, used in a constitutional sense, marriage provides a framework, and the framework is evolving and not cast in stone," Justice Bhat observed.

However, the court said it has to examine whether it was making policy choices, which was for the legislature to make, and whether it was doing something fundamentally contrary to the scheme of the 1954 Act.

SCO MEMBERS MUST POOL RESOURCES, EXPERTISE ON DISASTER RESILIENCE: SHAH



Team work: Amit Shah chairs a meeting of the heads of departments of SCO member states in New Delhi on Thursday.PTI

Union Home Minister Amit Shah has called upon the nations of the Shanghai Cooperation Organisation (SCO) to adopt a collective approach to disaster resilience by pooling resources and expertise and avoiding the duplication of efforts.

He was chairing a meeting on the prevention and elimination of emer-

gency situations on Thursday, addressing the heads of department of SCO member states. India assumed the presidency of the SCO in 2022. The bloc comprises eight member states: China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan and Uzbekistan. Pakistan attended the meeting virtually. Mr. Shah said that the SCO would probably be the largest regional organisation in the world, representing 40% of the global population, 25% of the global GDP and 22% of the world's total land area.

India believes that no hazard is small or big, and it does not leave anyone behind, Mr. Shah said, adding that India now has more accurate and timely early warning systems for drought, floods, lightning, heat waves, cold waves and cyclones. "The forecast not only warns us about the disaster but also predicts the potential impact it is likely to cause. At the time of a natural disaster, it is of great importance how quickly the relief reaches the affected area," he said. Noting that the India-led Coalition for Disaster Resilient Infrastructure (CDRI) has 39 members from across the world, he said that the Tsunami Early Warning System for the Indian Ocean Rim countries established by the Indian National Centre for Oceanic Information Services serves not just India but nearly two dozen other countries.

India has organised two knowledge-sharing workshops for SCO members on mitigating the impacts of earthquakes and floods. The Minister identified five major areas for the SCO to work on: confidence-building efforts in Asia, collective responsibility approach, expanding cooperation in communication and information sharing, identification of priority areas, and the use of newly developed technology in disaster resilience capacity building.

WE AIM TO INSPIRE YOU

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SPACEX'S UNCREWED STARSHIP EXPLODES SHORTLY **AFTER LIFTOFF**



The SpaceX Starship lifts off from the launchpad during a flight test from Starbase in Boca Chica, Texas on Thursday.

The rocket has been designed to send astronauts to the moon, Mars and beyond; despite the failure to complete the full 90-minute flight test and reach orbit, SpaceX declared it a success

Starship, the most powerful rocket ever built, exploded during its first flight on Thursday, but Elon Musk congratulated his SpaceX team on an "exciting" test of the spacecraft designed to send astronauts to the moon, Mars and beyond.

The uncrewed rocket disintegrated minutes after successfully blasting off at 8.33 a.m. Central Time (7.03 p.m. IST) from Starbase, the SpaceX spaceport in Boca Chica, Texas. The Starship spacecraft that will eventually carry crew and cargo had been scheduled to separate from the first-stage rocket booster three minutes into the flight, but separation failed to occur and the rocket blew up in a ball of fire over the Gulf of Mexico. Despite the failure to complete the full 90-minute flight test and reach orbit, SpaceX and Mr. Musk declared it a success. "Congrats team on an exciting test launch of Starship!" Mr. Musk tweeted. "Learned a lot for next test launch in a few months."

SpaceX said that "with a test like this, success comes from what we learn, and today's test will help us improve Starship's reliability as SpaceX seeks to make life multi-planetary."

NASA has picked the Starship spacecraft to ferry astronauts to the Moon in late 2025 — a mission known as Artemis III — for the first time since the Apollo programme ended in 1972. NASA chief Bill Nelson congratulated SpaceX, saying "every great achievement throughout history has demanded some level of calculated risk, because with great risk comes great reward."

Starship consists of a 164-foot-tall spacecraft designed to carry crew and cargo that sits atop a 230-foot tall first-stage Super Heavy booster rocket.

'WAR AGAINST INFLATION NOT YET WON'

The war against inflation has not yet been won, and it would be premature to declare an end to the current tightening cycle, RBI's Monetary Policy Committee (MPC) member Professor Javanth R. Varma remarked in his statement in the last MPC meeting, the minutes of which were released by the Reserve Bank on Thursday reveal.

Mr. Varma had expressed reservations on the second resolution, namely: "MPC decided to remain focused on withdrawal of accommodation to ensure that inflation progressively aligns with the target." While supporting growth, he wrote, "I cannot put my name to a stance that I do not even understand. At the same time, it is clear that the war against inflation has not vet been won, and it would be premature to declare an end to this tightening cycle." He flagged the need for heightened vigilance in the face of the fresh risks [an oil output cut by OPEC+ and monsoon-related] that have emerged. 'Warning signs'

"On the growth front, early warning signs of a possible slowdown are visible to a greater extent than in February. In the current situation of high inflation, monetary policy does not have the luxury of responding to these growth headwinds," he wrote.

It is almost "axiomatic' that monetary action can cool inflation only by suppressing demand. However, policymakers must be vigilant against overshooting the terminal policy rate, and thereby "slowing the economy", he

On the MPC's stance, he said, "I fail to comprehend its meaning. I am unable to reconcile the language of the stance with the... fact that no further 'withdrawal of accommodation' remains to be done... the repo rate has already

Time for a hawk's eye

Professor Varma flagged the need for greater vigilance in the face of the fresh risks such as an oil output cut by OPEC+ and monsoon-related issues that have emerged

 On the growth front, early warning signs of a possible slowdown are visible to a greater extent than in February

In the current situation of high inflation, monetary policy does not have the luxury of responding to these growth headwinds



Premature to declare end to tightening cycle, says RBI MPC's Varma; no further 'withdrawal of accommodation' remains to be done, reportate is already at 6.5% — a level that prevailed at the beginning of previous easing cycle in Feb. 2019, he says

been raised to the 6.5% level prevailing at the beginning of the previous easing cycle in February 2019."

INDIA'S REAL GDP GROWTH LIKELY ACCELERATED TO 4.9% IN Q4: ICRA

India's real GDP growth is likely to have picked up pace to 4.9% in the last quarter of 2022-2023 from the 4.4% uptick recorded in the October to December 2022 quarter, rating agency ICRA said on Thursday.

For the full year gone by, ICRA has retained its 6.9% GDP growth projection, a tad lower than the 7% projected by the National Statistical Office that will release its Q4 growth estimates at the end of May.

"Notwithstanding higher volumes for most indicators, India's GDP growth is likely to moderate to 6.9% in 2022-23 from 9.1% in 2021-22 given the margin compression in some industrial sectors owing to higher commodity prices, even as the services sector displayed a robust performance in the year," Aditi Nayar, chief economist and head — Research and Outreach at the firm told The Hindu.

However, when considered against pre-pandemic levels of 2019-20, the GDP growth last year would be about 10% higher, sharply over the 2.8% uptick seen in 2021-22, Ms. Nayar reckoned. ICRA has forecast India's 2023-24 GDP growth at 6%.

A mixed picture

The signals from economic activity in April are mixed so far, the agency said,

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citing a 28% month-on-month drop in vehicle registrations and a 6.6% fall in petrol sales, even as diesel sales rose 8.4% sequentially.

Electricity demand in the current month has contracted 1.9% from April 2022 levels.

NUMBERS GAME

Create economic opportunities to reap India's demographic dividend

The latest State of World Population Report, an authoritative analysis by the UN, has officially stamped what has been known for a while: that India will become the most populous country in mid-2023, surpassing China's 142.5 crore by about 3 million. These estimates are based on official country data as well as extrapolating birth, mortality and international migration trends. India has had a vacillating relationship with the size of its population. In the 'socialist' era, the growing population was a convenient excuse to explain India's poverty and the state's inability to improve average standards of living. These seeded deranged 'sterilisation' programmes that violently compromised dignity and freedom. Globalisation and the opening up of the economy in the 1990s saw India as a vast, untapped market, with 'fortunes at the bottom of the pyramid' that framed population as an advantage. India's large working age population — or the demographic dividend — relative to the developed countries, where the workforce was ageing, has provided labour-wage arbitrage and valuable economic opportunities. Indian numbers are behind the skilled and unskilled labour that power workforces in West Asia and Africa, undergird business process outsourcing projects from developed European countries and the United States, and are increasingly a significant component of university enrolment ahroad

relative prosperity, though unable to solve India's crisis of economic inequality, has, however, busted the myth of forced sterilisation and legal limits on family sizes being key to population control. Despite overtaking China. India's population growth is slowing. The National Family Health Survey reported in 2021 that the total fertility rate had, for the first time, dipped to below the replacement level of 2.1. India's population is forecast to grow from its current 1.4 billion to 1.67 billion in 2050 before settling at 1.53 billion in 2100, with the peak at 1.7 billion sometime in 2064, according to UN estimates. While the pendulum of opinion regarding population has swung from 'disadvantage' to 'advantage' in national discourse, it is relevant to analyse the question while factoring in newer developments. Earlier population debates did not account for the climate crisis and the fact that many migrants, after years of skilled and unskilled labour abroad, were becoming permanent immigrants: over 16 lakh Indians have renounced citizenship since 2011, including 2,25,620 people in 2022, the highest during the period, the External Affairs Minister told Parliament in February. Economic opportunity, more than national pride, shapes the working population's aspiration and, in its absence, a naturally decelerating population will be of limited advantage.

CARING FOR STRAYS

Without shelters, adoption of dogs, 2023 Rules could worsen canine crisis

According to the World Health Organization, 36% of the world's and 65% of Southeast Asia's rabies deaths happen in India. The National Rabies Control Programme has recorded 6,644 clinically suspected cases and deaths of human rabies in 2012-22. There have also been several media reports of the young and the old being attacked by packs of stray dogs, fatally in some cases. At the centre of these narratives is how India is responding to the stray dog menace. On April 18, the government announced the notification of its Animal Birth Control Rules 2023, which are likely to become as much a bone of contention as the earlier Animal Birth Control (Dogs) Rules 2001, were. They purportedly respond to three stimuli: strays cannot be relocated, as the Supreme Court of India has held; must not face cruelty; and must be cared for. Stray dogs are a nuisance by spreading disease; injuring and/or killing humans and wildlife; and by keeping people from accessing public spaces. The 2023 Rules require strays to be caught, vaccinated, neutered, and released back. Under the 2001 Rules, neither effort succeeded because the entire dog population (or at least a large fraction) needed to be treated at once. But the programme was implemented in piecemeal fashion, allowing some dog populations to supplant others over

time and the menace to continue. Neutering and vaccination also do not prevent dogs from forming packs and harassing passers-by.

The 2023 Rules also ask residents' welfare associations to care for stray dogs and feed them away from the children and the elderly, at fixed intervals. This could further the dogs' homelessness, and thus susceptibility to disease, injury, and discomfort. In the process, the Rules also transform "stray dogs" into a new class of "community animals" — a contrivance whose purpose is not clear. Instead, the Rules must prohibit the improper disposal of solid waste and casual feeding of dogs, and require them to be adopted and directly cared for, to eliminate canine homelessness altogether. The Animal Welfare Board of India Secretary also told The Hindu that local authorities "will be held responsible for any violation [during birth-control procedures] and animal-human conflicts". As under the 2001 Rules, these authorities will be in a pickle without more funds and staff, the requisite infrastructure, and proper coordination. Without otherwise housing dogs in purpose-built shelters and promoting formal ownership, the 2023 Rules potentially create more points of failure at the level of local governments and residents' welfare associations while dressing up the cruelty of dog homelessness.

A NEW EDGE TO THE FIGHT AGAINST TUBERCULOSIS

Dr. Soumya Swaminathan is the former Chief Scientist of the World Health Organization (WHO), and currently leads the M.S. Swaminathan Research Foundation

At the One World TB Summit in Varanasi, Uttar Pradesh on March 24, 2023, Prime Minister Narendra Modi instilled fresh energy to the global tuberculosis (TB) elimination response and reiterated India's commitment to spearhead this effort. Mr. Modi further emphasised the importance of innovation and the need to "find new ways and formulate new strategies" to achieve the desired outcomes. The Prime Minister's remarks are critical as we look to redefine India's and the world's TB elimination response — with innovation and research being central drivers of change.

Lessons from the COVID-19 response

The COVID-19 pandemic provides a good reflection point — even with innumerable challenges, countries were able to counter COVID-19 by drawing upon the innate human spirit to adapt, learn, experiment, and innovate. The pandemic has shown us that together, we can overcome unprecedented adversity. And if we could do it to overcome COVID-19, we can, and must certainly, do it to end TB.

Over the last few years, India has made significant progress in its efforts to end TB. India's National TB Elimination Programme, or the NTEP (previously known as the Revised National Tuberculosis Control

Programme, or RNTCP), has introduced several measures to find, notify and treat TB cases, with case notifications rising from 15.6 lakh in 2014 to over 24 lakh in 2022. This reflects the programme's expanded reach and improved detection measures.

Further, novel approaches including engagement with the private sector, launch of social support provisions and introduction of diagnostic tools and new drug regimens, have improved TB management. However, while these efforts have been commendable, lack of widespread awareness about the disease and lack of access to quality care continue to be a challenge. The recent National TB Prevalence Survey (in India) found that 64% of people with infectious TB did not seek care. As a result, national-level estimates suggest that for every person notified with TB, we miss detecting almost two more cases.

To address this challenge and truly bring transformative change in our TB response efforts, we will need to introduce disruptive approaches and new tools to change the way we prevent, diagnose, and treat TB. India has long recognised the importance of investing in health research and development, especially in recent years. The Mission COVID Suraksha programme to

develop vaccines was a good example of a public-private partnership, with clear goals and outcomes. The huge number of diagnostic tests developed and a variety of different vaccine platforms show that our manufacturing sector is robust and can scale rapidly.

It is also heartening to see the establishment of centres of excellence, which will facilitate collaboration between Indian Council of Medical Research laboratories and the private sector. It is possible, therefore, to strengthen and expand research and development efforts for TB, to develop new tools that will help India (and other developing countries) meet the End TB targets.

Prioritise TB vaccine trials

First, for any infectious disease, a vaccine is what makes elimination possible. We do have the Bacille Calmette-Guérin (BCG) vaccine for TB, but it does not adequately protect adolescents and adults who are at the highest risk for developing and spreading TB. While COVID-19 vaccines were developed within a year, we must prioritise and pick up the pace to find an effective TB vaccine. There are currently over 15 TB vaccine candidates in the pipeline; we must ensure that their clinical trials are prioritised to assess their efficacy in various community settings and for different target groups.

Second, testing for, and diagnosing TB needs to become more accessible and affordable so much so that each person with suggestive symptoms or frontline worker can test and get results within minutes, at minimal costs. Point-of-Care Tests (POCTs), such as home-based tests for COVID, allowed decentralised, rapid and low-cost diagnostics to provide results within minutes. New innovations such as nasal and tongue swab-based tests for TB can be a game changer by reducing diagnostic delays. Further, handheld digital x-ray machines (with artificial intelligence-based software) can now be taken to villages and urban settlements to screen large numbers of high risk individuals, safely and conveniently.

Third, the development and introduction of new therapeutic molecules

can play a crucial role in the long run. While we continue to invest in drug discovery, we must also scale up newer and more effective regimens and also dip into our armoury to re-purpose existing drugs for TB. Shorter, safer, and more effective regimens do exist and include the 1HP regimen for latent TB infections, the four-month regimen (HPZM) for drug-susceptible TB, and the six-month regimen (BPaL/M) for drug-resistant TB. The evidence on these regimens is clear; timelines for scale-up, however, have been too long. Appropriate policy frameworks

Finally, part of the process of strengthening the innovation ecosystem also involves creating regulatory and policy frameworks that smoothen the rollout of proven tools to reach people with as little delay as possible. This requires greater collaboration: not just between policymakers, scientists, product developers and clinical researchers across the country and even across regions, but potentially even between governments. Harmonisation of standards and regulatory processes between countries can enable mutual recognition of evidence-based standards and licences and save critical time towards rollout.

The COVID-19 pandemic proved India's apt title: pharmacy of the world. Our scientific ingenuity during the pandemic has cemented our position as pioneers in innovation in the life sciences. In this spirit, we must create a strong platform that channelises investments in research to bring in a paradigm shift at every stage of the TB care cascade — prevention, testing, and treatment. With its G-20 presidency, India has another historical opportunity to build a global health architecture that creates equitable access for all. Let us use this opportunity to call for the collaborative development of transformational tools and approaches that cater to not only our own needs but also that of the under-represented but disproportionately affected developing world. TB should no longer be the leading infectious disease killer globally, in the 21st century, and India can lead the way.

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