



### A new course

President's address should have fleshed out PM Modi's agenda of winning the trust of all

President Ram Nath Kovind's address to the joint sitting of Parliament set out the philosophy and priorities of the Narendra Modi government that has been re-elected. It outlined the rupture that has come to characterise Mr. Modi's politics, marked by his 2014 victory, and pointedly ignored the progress India had made during earlier years. The President said his government was "committed to that very idea of nation-building, the foundation for which was laid in 2014." Harnessing the thoughts of social reformer Sree Narayana Guru and Rabindranath Tagore to emphasise brotherhood among all sections and the celebration of the human spirit would have been uplifting if only the rest of the speech dwelt on those ideas in some detail and with force. In the absence of elaboration, such grand intent in the initial paragraphs was not reassuring. The Prime Minister's newly added objective of winning the trust of all governed, *Sabka vishwas*, was not fleshed out meaningfully. Sardar Patel, Babasaheb Ambedkar and Mahatma Gandhi found mention, but not Jawaharlal Nehru, the founding Prime Minister whose vision and unflinching commitment to secularism, pluralism and progress set the Republic on a sustainable course.

The 'New India' that the President mentioned is a departure from that founding vision, and there was no ambiguity on that aspect. He struck a chord with the constituency of the government, but not with all. The notion that there is a non-sectarian development agenda that is impervious to identity politics is good to have, and the Prime Minister's evangelical fervour in driving its schemes is laudable. But triumphalism around many schemes such as the Swachh Bharat Mission has deflected public attention from the serious tasks ahead and an honest discussion on achievements. New focus on water conservation and management and the rural economy is not a moment too early. These are critical areas. Mr. Kovind also spoke of the government's intent to expand scientific research and higher education. A speech by the President is significant not for the technical details it offers, but for the vision. The cultural nationalist agenda of the ruling dispensation that has made intellectual curiosity and academic integrity dangerous in India is not the route to any of these goals. The restrictions on cattle trade and violence against those employed in it - mostly Muslims and Dalits - have not merely become a protracted communal conflict but are also among the factors that have pushed the rural economy off the rails. Announcing yet another scheme for cattle, as the President did, is not confronting the real, self-inflicted problem. What differentiates one dispensation from another is not the material ambitions but the social purpose and direction of such pursuits. The clarity on that aspect in the address may be stimulating for many, but certainly not good for India.

### A stable planet

India is set to become the most populous nation; improving the quality of life is crucial

The key message from the UN's *World Population Prospects 2019* report is that national leaders must redouble their efforts to raise education, health and living standards for people everywhere. India is projected to become the most populous country by 2027 surpassing China, and host 1.64 billion people by 2050; the world as a whole could be home to 8.5 billion people in just over a decade from now, and the number could go up to 9.7 billion by mid-century. The projections should be viewed in perspective, considering that alarmist Malthusian fears of inability to provide for more than a billion people on earth did not come true. Yet, there are strong arguments in favour of stabilising population numbers by raising the quality of life of people, and achieving sustainable development that will not destroy the environment. The UN report shows migration to countries with a falling ratio of working-age people to those above 65 will be steady, as those economies open up to workers to sustain economic production. Japan has the lowest such ratio, followed by Europe and the Caribbean; in over three decades, North America, Eastern and Southeastern Asia will join this group. India meanwhile will have a vast number of young people and insufficient natural resources left for exploitation. Preparing for the changes and opportunities migration offers will depend on a skills revolution.

At the national level, achieving a reduction in fertility rates in States such as Bihar, Uttar Pradesh, Haryana, Madhya Pradesh, Jharkhand and Chhattisgarh - which are high as per Sample Registration System data - is a challenge for India as it seeks to stabilise population growth. This is possible if the State governments set their minds to it. They must singularly focus on improving education and health access for women, both of which will help them be gainfully employed. On the other hand, a rise in life expectancy has brought with it a policy imperative that is bound to become even more important in coming decades. A growing population of older adults is a certainty, and it opens up prospects for employment in many new services catering to them. Urban facilities have to be reimagined, with an emphasis on access to good, affordable housing and mobility. The Sustainable Development Goals framework provides a roadmap to this new era. But progress in poverty reduction, greater equality, better nutrition, universal education and health care, needs state support and strong civil society institutions. Making agriculture remunerative and keeping food prices stable are crucial to ensure nutrition for all. India is set to become the most populous nation. For its leaders, improving the quality of life for its people will be a test of political will.

## Smart diplomacy in five moves

India needs to see through many balancing acts to deal with regional tensions



HAPPYMON JACOB

The nature and dynamics of Southern Asian geopolitics are undergoing a radical transformation, slowly, steadily and in an irrevocable manner. One of the world's most volatile regions and hitherto dominated by the United States, Southern Asia is today at an inflection point with far-reaching implications for the states in the region, and for India in particular. Is New Delhi adequately prepared to weather the incoming geopolitical storm?

To begin with, there is a sharp, though often understated, great power competition in the region with the U.S. caught between its reluctance to part with its quickly fading glory on the one hand and unwillingness to do what it takes to maintain its regional influence on the other. And yet, when challenged by China and Russia in the regional geopolitical landscape, the U.S.'s superpower instinct is to push back, often leading to short-sighted decisions and confused policies. The resultant geopolitical competition for space, power and influence in the regional scheme of things is undoing the traditional geopolitical certainties in Southern Asia. Russia and China are jointly and individually challenging the U.S.'s pre-eminence and drafting smaller countries of the region into their bandwagon/s.

Despite our unease and traditional suspicion towards great power system shapers and manag-

ers, the simple fact is that a benign unipolarity or a balanced multipolarity with some amount of great power concert is generally better than unbalanced multipolarity. Unbalanced multipolarity when combined with a situation of power transition in the regional sub-system, as is perhaps the case today, might prove to be destabilising. We are perhaps at the cusp of such a moment in Southern Asia.

#### The China pivot

Then there is the emergence of the 'China pivot' in the region. Washington's role as the regional pivot and power manager is becoming a thing of the past with Beijing increasingly able and willing to assume that role. Regional geopolitics, from Iran to Central Asia and from the South China Sea to the Indian Ocean region, is increasingly being shaped by China. China is the new regional hegemon with states in the region jumping on its bandwagon without much resistance. When new powers are on an ascendance, its neighbours tend to recalibrate their policies and old partnerships and alliances. Regional holdouts and challengers such as India will need to balance themselves tactfully to steer clear of the rising hegemon's ire.

Yet another feature of the current regional sub-system is the presence of an extreme trust deficit among the various actors in the region. That India and Pakistan, or China and India do not trust each other is not news, but a trust deficit exists between even seemingly congenial partners such as the U.S. and India, Russia and China, and among traditional partners such as Iran and India, and Russia and India. The varying degrees of trust deficit when combined with other



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factors such as unresolved conflicts, misunderstandings or the occurrence of a crisis could easily push the region towards more conflict and friction, and obviously less cooperation and regional integration.

The rising war talk in the region is yet another contemporary feature of the Southern Asian regional sub-system. The possibility of a military conflict between Iran and the U.S. (a path the hawks in Washington are pushing U.S. President Donald Trump to pursue) which in turn would draw many more countries in the region into it leading to widespread instability, potential for India-Pakistan border skirmishes and possible escalation, an escalating China-U.S. trade war, and the many proxy and cold wars in Afghanistan and West Asia will keep the temperature high in the region for the foreseeable future.

In sum, a power transition in the Southern Asian sub-system, an extreme trust deficit and the escalating war talk pose ominous signs for the region.

#### The layers

This is not a pretty picture; certainly not for India, a country that is caught right in the middle of these tectonic developments and that habitually reacts to geopolitical developments with character-

istic tardiness. And yet, true to its DNA, India is likely to adopt a slew of balancing acts. This is perhaps the most appropriate strategy to adopt under the circumstances provided it does so with a sense of clarity and purpose instead of merely reacting. There are at least five layers of balancing acts that India would need to adopt in order to weather the incoming geopolitical storm. At level one, it would need to balance its innate desire to get closer to the U.S. with the unavoidable necessities of not excessively provoking China both in the maritime and continental domains. Clearly, getting too close to the U.S. will provoke China, and vice versa.

The second layer of this balancing game should drive India's West Asia policy. Here it would have to take care of its energy and other interests (including the Chabahar project) with Iran and not alienate the U.S., Saudi Arabia and Israel by doing so. While Iran's share in India's energy imports is steadily decreasing, alienating Iran might not suit India's strategic interests in the longer run.

As a third balancing act, dealing with the Russia-China partnership will be crucial for India's continental strategy, be it with regard to arms sales, the Afghan question or checking Chinese dominance of the region. New Delhi should be clever enough to exploit the not-so-apparent fissures between Beijing and Moscow. A related concern should be the growing relationship between Pakistan and Russia which must be dealt with by smart diplomacy rather than outrage.

Yet another layer that requires careful balancing by India is the strategic partnership between Pa-

kistan and China. While Pakistan is the revisionist power in the region, China, being a rising superpower and an already status quoist power in the region, could potentially be persuaded to check Pakistan's revisionist tendencies. This again requires a great deal of subtle effort from New Delhi to convince Beijing that it has great stakes in regional strategic stability. What must be noted is that both Beijing and New Delhi, despite their sharp differences and unavoidable strategic competition, share a stake in the region's stability. Therefore even a small measure of rapprochement between them, as it seemingly exists today, could stabilise the region to a great extent.

#### Handling Afghanistan

Finally, if India is serious about having a say in Afghanistan's future, it would need to enact several balancing acts there: between Russia and China, China and Pakistan, the Taliban and Kabul, and the Taliban and Pakistan. In a constantly changing Afghan geopolitical landscape, the contents of India's interests should also evolve.

New Delhi should keep in mind that it must, by all means, be careful to avoid getting caught in a nutcracker geopolitical situation in the region. Engaging in a delicate balancing game is undeniably the need of the hour, and let us remember that balancing such seeming contradictions is what smart diplomacy is meant to achieve.

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## Why South Asia must cooperate

A shared vision is essential to attaining the Sustainable Development Goals



SYED MUNIR KHASRU

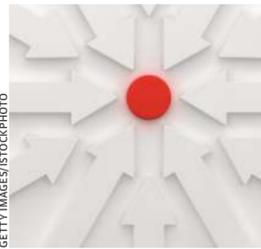
South Asia covers only about 3.5% of the world's land surface area but hosts a fourth of its population, making it a region of significant importance for international development. In spite of the geographic proximity countries in this region enjoy and their common socio-cultural bonds, this is one of the world's least integrated regions. Intra-regional trade is a meagre 5% of the total trade these countries do globally, while intra-regional investment is less than 1% of the region's overall global investment. South Asia's average GDP per capita is only about 9.64% of the global average. Accounting for more than 30% of the world's poor, the region faces myriad economic and environmental challenges.

#### Lack of initiatives

While the countries share a host of common development challenges, economic cooperation remains less than adequate. While a few noteworthy regional initiatives such as the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the Bangladesh-Bhutan-India-Nepal (BBIN) Initiative have

been undertaken to bring the countries closer together, economically and socially, there is scope for much more. For a region with common development challenges of inequality, poverty, weak governance and poor infrastructure, a shared vision of attaining the 2030 Agenda for Sustainable Development Goals (SDGs) provides enormous opportunities for cooperation, collaboration, and convergence (3C).

Compared to the Millennium Development Goals (MDGs), which were a set of eight objectives to be achieved by developing nations with support from developed nations by 2015, the SDGs are more universal, inclusive and integrated in nature. The 17 goals and their 169 targets are interconnected and cannot be implemented by countries working in isolation. Many are transnational in nature and require regional efforts. South Asian countries could benefit a lot by adopting a regional framework of cooperation that can support, strengthen and stimulate the SDGs. The SDGs highlight not only the importance of regional approach towards achieving the goals but also the regional synergy and resulting positive value additions towards achieving the SDG 2030 Agenda. In the SDG Index 2018, which is an assessment of countries' progress, among 156 countries only two South Asian countries, Bhutan and Sri Lanka, are in the top 100. India is ranked 112th.



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Most South Asian countries have made good progress in ending extreme poverty, but they face persistent challenges to goals related to industry, innovation and infrastructure, zero hunger, gender equality, education, sustainable cities and communities and decent work and economic growth. These apart, most of South Asia continues to be vulnerable to climate change and climate-induced natural disasters.

#### Varying performances

A closer look at the country-level data shows that India is performing well in Goal 1 (no poverty), Goal 6 (clean water and sanitation), Goal 12 (sustainable consumption and production), Goal 13 (climate action) and Goal 16 (peace, justice and strong institutions) while doing poorly in goal 2 (zero hunger), Goal 5 (gender equality) and Goal 9 (industry, innovation and infrastructure). Like India, Bangladesh is doing well in Goals 1, 6, 12 and 13 but poorly in Goals 2 and 9, and lagging behind

in Goal 7 (affordable and clean energy). While doing well in Goals 1 and 12, Pakistan needs improvement in Goals 2, 4, 5 and 9, similar to India and Bangladesh. It also needs improved performance with respect to Goal 8 (decent work and economic growth). There are a lot of similarities among these three big economies of South Asia with respect to achieving some specific SDGs as well as exhibiting poor performance in some common goals.

A regional strategic approach to tackle common development challenges can bring enormous benefits to South Asia. SDGs related to energy, biodiversity, infrastructure, climate resilience and capacities development are transnational, and here policy harmonisation can play a pivotal role in reducing duplication and increasing efficiency. In a study titled 'SDGs Needs Assessment and Financing Strategy: Bangladesh Perspective', Bangladesh has undertaken exemplary initiatives for analysing its available resources and additional funding requirements for SDG implementation, suggesting that the country requires an additional \$928 billion to fully implement the SDGs. The study identifies five possible sources for SDGs financing: public sector, private sector, public-private partnership, external sector and non-government organisations. On the other hand, data for many of the SDG targets and indicators for the Maldives are unavailable. Similarly, India has

formulated some pragmatic plans and initiatives to improve food and nutrition security from which many of the neighbouring countries can benefit.

To address institutional and infrastructural deficits, South Asian countries need deeper regional cooperation. On financing the SDGs in South Asia, countries can work towards increasing the flow of intra-regional FDI. The private sector too can play a vital role in resource mobilisation.

#### Taking everyone along

The South Asian Association for Regional Cooperation (SAARC), the platform for regional economic cooperation in this region, has become moribund and remains unsuccessful in promoting regional economic cooperation. If the countries of South Asia, the fastest growing region of the world, can come to a common understanding on regional integration and cooperation in achieving the SDGs, it can unleash a powerful synergistic force that can finally make South Asia converge. A convergence towards achieving a common socio-economic agenda gives hope that no one in South Asia will be left behind in the journey towards eradicating poverty and enduring dignity to all.

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### LETTERS TO THE EDITOR

Letters emailed to letters@thehindu.co.in must carry the full postal address and the full name or the name with initials.

#### The yoga way

The article, "What yoga can teach us" (Editorial page, June 17) suggests that if international negotiations started with the practice of yoga, it could result in a calm ambience and allow for wise decisions to evolve. My take on this is that as the land of science, we in India should implement and demonstrate to the world how our discussions in Parliament and elsewhere take place in a calm and quiet ambience created by its practice and how wise and mature decisions are churned out. In the current situation, many of the ardent advocates of yoga in India are not found to be in a state of calm and maturity, in turn provoking divisive tendencies in society. More often than not they are found to make emotionally explosive remarks to instigate disquiet rather

than peace. A theory of science has to be proven for its acceptance.

P.G. MATHEW, Kochi

#### Party hopping

India needs a stringent anti-defection law more than a 'one nation, one poll'. There may be reasons for those in the Opposition moving over to the ruling party, but the perception is that there is more to it than meets the eye (Page 1, "Four TDP Rajya Sabha members join BJP", June 21). People have high expectations from Modi 2.0 when there are core issues such as a faltering economy and agriculture. The BJP must encourage healthy democratic practices.

U.A. PRAVEEN, Warangal, Telangana

■ The Prime Minister's statesman-like pronouncements after

assuming office raised hopes of a refreshing new era. However the cross-over confirms that political morality remains as low as ever. The fact that the MPs are under the scanner points to what could be at play. The BJP's dire need for a majority in the Rajya Sabha is understandable but not at the cost of democratic principles. The anti-defection laws need to be revisited.

MANOHAR ALEMETH, Kannur, Kerala

#### Doctors' safety

In his article, "Doctors and patients deserve better" (OpEd page, June 19), Dr. Nagral has given us an understanding of the roots of the pervasive evil of violence against doctors and nurses in India. But as a medical practitioner working overseas for the last 18 years, I can say that violence is not unusual in western

countries. It has become the subject of discussion in medical literature and the lay press in the U.S. The common feature of these attacks is "victim shaming" by administrators and senior management in hospitals. In other words, the doctor or nurse concerned is made to feel that it is they who brought on the attack due to a 'lack of proper communication', or 'insensitivity at a time of bereavement/emotional distress'. There is now a call for these attitudes to change and to bring in an atmosphere of caring for the victim of the attack. Nothing changes unless systems agree. The writer would agree that this dictum is the basis for a lot of the work that follows audits of unexpected or poor outcomes after surgery. The surgeon cannot be made to shoulder the entire blame, or make the corrections

necessary to prevent recurrences. Based on this principle it would behoove us to look at what systemic changes would help prevent violence in hospitals. Parliament has to pass laws or amend the Code of Criminal Procedure appropriately to make violence against doctors, nurses and hospital personnel in the line of duty a cognisable offence. Appropriate changes in the Evidence Act that would make video-recorded evidence adequate to prosecute a violent offender and extending the statute of limitations to allow such prosecution to happen up to five years would also be necessary. The prescribed punishment should also be made clear and based on other such laws currently in place in Commonwealth countries.

Dr. PHILIP G. THOMAS, McAllen, Texas, U.S.

#### Seek foreign assistance

The Chennai urban agglomeration is reported to have a population of around 9 million, and receives an average annual rainfall of about 50 inches. The Dallas Fortworth metro area in the U.S. has a population of 6.8 million and receives an annual rainfall of only 36 inches. I have lived in a Dallas suburb for a few years without experiencing any drinking water scarcity. If at all there was any shortfall in water supply, it was restricted to the operation of sprinklers to water lawns. Many residences have private swimming pools. The main reason for this happy situation can be ascribed to excellent planning. The Tamil Nadu government could seek the assistance of the U.S. government.

V. NAGARAJAN, Chennai

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# A hundred deaths, and no answers

Cases of acute encephalitis syndrome have seen a spike in Muzaffarpur this year, already claiming more than a hundred lives. **Jacob Koshy** reports on the appalling state of health care in Bihar, even as the debate on what is causing the deaths rages on

For three days, Bihari Mahato and Shyam Babu Saha's families have shared a hospital bed. The two daily-wage labourers, who have had to give up work for three days, haven't exchanged a word, though they have much in common. Both have a boy and a girl each. And their children are battling for life.

Sundar, Mahato's three-and-a-half-year-old son, is naked, emaciated, delirious and has a distended stomach. Himanshi, six months old and in a striped shirt and shorts, looks bigger and healthier than Sundar. She sleeps longer – fitfully, her mother Vimla says. Both families are from different districts of Bihar. Mahato is from Muzaffarpur and Saha is from Sitamarhi district. Their children were suddenly taken ill. When the children were convulsing and feverish, they were rushed to the Sri Krishna Medical College and Hospital (SKMCH) in Muzaffarpur. The doctors noted that their blood sugar had dropped precipitously.

Both children are being given dextrose saline (a sugar solution often administered intravenously), but their parents are nervous. "The fever has subsided but it keeps returning," says Saha. "The doctors aren't paying us much attention." But that's a quibble given that many other ailing children are sprawled out on mattresses on the floor. Amidst peeling plaster, strewn banana peels, stomping doctors, nurses, journalists and television crew, the children's ward at SKMCH is symptomatic of the confusion and panic that has gripped Muzaffarpur since early June.

The floor above the general ward is home to the Intensive Care Units (ICUs). Each of the five ICUs has eight beds. Not one of the beds has fewer than three children hooked to bleeping monitors and intravenous lines. Unusually for an ICU, there's little restriction on non-hospital staff shuttling in and out, but unlike the squalid paediatric wards below, there are no patients sprawled on the floor. The floor is clean, the air-conditioners work, the nurses are extra vigilant, and yet here's where death lurks around the corner.

## Season of trouble

There is a protocol for doctors. As soon as children are wheeled in, they are monitored for fever, convulsions and signs of confusion or loss of consciousness. "What I've seen is that several children are brought too late. Unfortunately we lose them," says J.P. Mandal, a resident doctor at SKMCH. Between June 1 and 17, 312 children were admitted to the hospital under the umbrella diagnosis of acute encephalitis syndrome (AES). According to the Bihar health department, 85 died. The bulk of the dead, 48, were children aged three to seven. Twenty-nine children were less than three years of age. As of June 21, 104 of the 424 children admitted since January 1 had died. Encephalitis, which refers to an inflammation in the brain due to a viral or bacterial attack, causes fever and almost never a drop in blood sugar. In the current epidemic, as well as in previous ones in Muzaffarpur, the doctors have marked cases of and deaths by hypoglycaemia (drop in blood sugar), which is unusual.

While Bihar loses hundreds of children to AES every year, there were sharp spikes in 2012 and 2014, when 395 and 372 children, respectively, lost their lives. Through the years, AES cases have been reported from several districts in Bihar: Gaya, Patna, Aurangabad, Saran, East Champaran, Sitamarhi and Vaishali. Government figures show that the peak years of 2012 and 2014 saw Muzaffarpur account for 35-40% of hospital admissions. While this year's incidences and deaths are fewer in comparison, the season of trouble is far from over. The outbreak in 2012 took place between May and November. In 2014, it was from May to July. There's no saying how long the current outbreak will last. A common refrain among district administration officials and some doctors is that the yearly outbreak ceases in intensity soon after the monsoon rains begin in Bihar. Why is that? Nobody ventures an explanation.

Sanjay Kumar, the State's top civil servant in charge of health, says he cannot quite put a finger on a "single, determining factor" that is responsible for 2019 turning out to be a bad year. It could be the ongoing heatwave – several parts of Patna, Gaya and even Muzaffarpur have recorded temperatures in excess of 4-5°C over what's normal for this time of the year. At least 80 people have succumbed to the heatwave. "The added heat and humidity could have made young children particularly susceptible to dehydration," he reckons. "It could also be an infectious disease. It could also be because of children eating litchis."

Kumar says all the children who are admitted belong to the lowest socioeconomic rung; there are no instances of infection in cities or even semi-urban localities. He emphasises that the government had been prepared this year



Children with acute encephalitis syndrome undergo treatment at the Sri Krishna Medical College and Hospital in Muzaffarpur, Bihar. As of June 21, 104 of the 424 children admitted since January 1 had died due to AES. (Below): Parents of Dileep Kumar, who died in SKMCH, in front of their home in Manika Bishunpur Chand village, Muzaffarpur. •RANJEET KUMAR



**We work in the fields and there are litchi orchards aplenty where we live. But this boy isn't capable of plucking fruit on his own. We do feed him some fruit as well as other food but we don't starve him.**

INDAL PASWAN  
Father of patient

too, like in the past, for the outbreak. It stocked up and supplied oral rehydration solution, ensured that medicine and equipment were provided at medical colleges and district health centres, and conducted public awareness campaigns about the imminent outbreak. However, he admits that the district's key referral hospital, SKMCH, wasn't equipped to deal with the deluge of patients. "This year will be a turning point. The bed capacity will be increased to 1,500 and we will have a virology lab [to better investigate vitals of patients and determine disease causes]."

## Debating the litchi link

Arun Shah, a paediatrician and private practitioner who has been working in the city since 1984, insists that the spike in AES cases and in fatalities is a result of malnourished children suffering brain damage after eating litchis, particularly unripe or overripe ones. In a 2014 paper, Shah and virologist T. Jacob John had argued that the children in Shah's clinic in Muzaffarpur were found to have extremely low blood sugar levels and signs of brain damage. While viral or bacterial infections that cause encephalitis (an inflammation of brain cells due to an infection) were well known in Muzaffarpur and neighbouring districts, many of them were taking sick and dying due to encephalopathy (brain damage, in this case, due to an environmental toxin). In 2016, a detailed investigation, published in *The Lancet Global Health* by the National Centre for Disease Control, India, and the U.S. Centers for Disease Control and Prevention, found "confirmation" that litchis contained a chemical called methylene cyclopropyl glycine (MCPG). These are naturally occurring toxins that cause hypoglycaemia and metabolic derangement in children.

When a child is malnourished, her body, having exhausted its reserves of glucose from the digestive tract and the liver, typically turns to fatty acids in biochemical desperation to supply blood sugar to the brain. MCPG, the theory

goes, thwarts this mechanism. This can send the brain into hypoglycaemic shock triggering convulsions and, if unaddressed, even death. "But please don't blame litchis," stresses Shah. "It is the pride of Muzaffarpur."

At a press conference two years ago, to underline that the litchi fruit was only a triggering factor and sickened only malnourished children, Shah and John ate a bowlful of the fruit in front of television cameras to emphasise that it was malnutrition, and not the fruit, that was the dominant cause of the disease. Shah is unambiguous that the children are suffering because the government didn't do enough. The recently concluded Lok Sabha election distracted the government from adequately preparing for the outbreak, he says. In 2016, he was part of a government-constituted committee that prescribed guidelines: Children shouldn't be allowed to skip their evening meal, they should avoid stepping out in the heat, and local public healthcare centres must stock up on anti-convulsion drugs as well as dextrose. These were adhered to in 2017 and 2018. And that's why there were relatively fewer reports of AES, he argues.

While encephalitis outbreaks in Uttar Pradesh's Gorakhpur were due to other causes, and children from Muzaffarpur and neighbouring districts have battled viruses such as the Japanese encephalitis virus, the large-scale litchi cultivation in Muzaffarpur, which contributes about 40% of the State's litchi production, "can't be ignored as a triggering factor," he points out.

At SKMCH, several parents of the ailing children are categorical that their children did not eat litchis. The authors of *The Lancet* study found that two-thirds of children who were sick had eaten litchis. "We work in the fields and there are litchi orchards aplenty where

we live," says Indal Paswan, whose two-and-a-half-year-old son is prostrate on a hospital bed. "But this boy isn't capable of plucking fruit on his own. We do feed him some fruit as well as other food but we don't starve him."

Mandal is insistent that there is a virus or some biological agent that is responsible for the recurrent outbreaks. He scoffs at suggestions of the litchi's complicity. Children who were brought to the hospital were "poor but not classically malnourished," he says. If malnutrition and litchi consumption were the causes, then there ought to have been a fairly constant number of deaths every year. This has not been observed, he says. "A peak and an ebb in cases and deaths is what we see. And that's more typical of a biological agent."

That no virus or bacteria has been isolated yet in Muzaffarpur is because the hospital lacks adequate facilities to collect tissue and blood samples from patients and preserve them adequately for examination. "I'm confident that at some point this will be found and there will be no mystery," Mandal says. The focus of treatment, he adds, is to ensure that convulsions are brought under control and blood sugar levels are restored.

What Shah and Mandal do agree on is that the vast majority of deaths could have been prevented if the children had made it to a hospital on time. The most important medicines were easily available, and most of the primary health care centres were well stocked and equipped to deal with AES cases.

## No time to grieve

Yet, four-year-old Mohammed Jahid lost his life. Until he fell sick, Jahid had spent his days playing with his older siblings and cousins in the village of Bishunpur Chand, Musahari. His home was a single room thatched hut that did not have a

toilet. His and his cousins' houses lay at the edge of an orchard that had several rows of tall, stout litchi trees. In June, there were only a few fruits that clung to the trees. Most had been plucked and carted away for sale by the owner of the orchard who lives in Patna. "He didn't show any signs of illness. He had a fever for two days," recounts Jahid's aunt, Asha Khatoon. "We took him to a private doctor nearby." One night, Jahid became delirious, and his father Mohammed Idris rushed to get an autorickshaw to take him to a hospital. He didn't find one immediately as the roads had been dug up. When they made it to SKMCH, Jahid was immediately taken to the ICU, but he didn't survive beyond three hours. A day after burying Jahid, Idris was away to find work as a daily-wage labourer. There were still two boys, two girls and a wife to feed.

Dinesh Ram, who lives half a kilometre away from Jahid's house, mourns the loss of his three-year-old son, Dileep Kumar. The boy had complained of stomach pain for three days and the local doctor had prescribed a tonic. That didn't work. When the child turned febrile, Ram scrambled to get him to SKMCH that was about 20 km away.

The Bihar government has announced ₹4 lakh as compensation to every family that has lost a child to AES. Ram didn't know that. He was unaware that he had to collect a death certificate from the hospital to claim the compensation. He'd thrown away the medical receipt after he had his son cremated. "We are poor and unaware. I really don't know what to do. There are other children to take care of," he says.

## Poor health record

Irrespective of whether a biological agent or malnutrition is to blame, Bi-

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J.P. MANDAL  
Resident doctor at SKMCH

har's poor track record in ensuring that the poorest have access to adequate nutrition and distrust in the public health care system are major causes for the deaths. "SKMCH is a tertiary care centre and is a medical college-cum-hospital. We have our limitations. Encephalitis is not the only thing we deal with. Several primary health centres are well equipped and well staffed, but people somehow believe that they can only be saved here," says Mandal. "There are clear state-directed guidelines on what signs and symptoms doctors have to watch out for, and there is a clear action plan. Just following it is adequate."

A senior government official, who doesn't want to be identified, says doctors in several primary health care centres are "afraid" of doing anything beyond the bare minimum to rescue a child. "Because the primary health care centres and health centres are located in a village or community, there's a greater chance of violence in case a child dies. Over the years, this has led to a lack of trust among people in their nearest health facility and they opt for tertiary care. Solving this remains among the government's key worries," he says.

Moreover, Bihar's position at the bottom of national health indices makes novel diseases harder to detect and known diseases harder to treat. According to the National Family Health Survey (NFHS) of 2015-2016, 48% of children in Bihar were stunted, compared to the national average of 38%. Bihar also performed poorly in terms of its ability to spend and implement schemes that provided nutritious food to children and expectant mothers. Two-thirds of eligible children did not get healthy meals, the NFHS report noted.

Shah says he's decided to embark on an experiment to conclusively prove that malnutrition is the single biggest cause of Muzaffarpur's tragedy. Along with a team, he will be identifying villages in blocks that show maximum mortality. He says before the litchi season next year, he will personally ensure that children are well fed and that they don't eat too many litchis or loiter about in the heat. "I promise you there will be zero deaths. Then perhaps the State administration can become more serious about addressing hunger and malnutrition," he says.

But today, the State has failed Muzaffarpur's children.

