

Planting the seed of an idea

These experiments could obviously translate into better crop yields and hardier plants that could thrive in inhospitable parts of the world



QUANTUM LEAP

DEVANGSHU DATTA

Man kind's grandiose ambitions for colonising space and settling on other planets, and to live long-term in closed ecosystems within spaceships, rest on several large assumptions. One is that human beings will be able to grow food, both in space, and on other planets.

The first-ever attempt to grow plants on another celestial body, can be considered promising, if inconclusive.

China's Chang'e-4, which landed on the far side of the moon on January 3, 2019, managed to successfully germinate cotton seeds. But the seeds withered and died with the onset of lunar night.

Researchers at Chongqing University created an enclosed environment within an aluminium canister, for the craft. This mini-biosphere contained water, earth soil, four types of seeds, fruit fly eggs, and yeast.

The cotton seeds germinated on the moon, sprouting leaves. But the potato, rapeseed and Arabidopsis (commonly called thale cress, a plant related to cabbage and mustard) did not germinate. The fruit fly eggs did not hatch either, going by the reports.

The researchers hoped that the fly eggs would hatch, with the plants providing oxygen via photosynthesis, while the flies fed on the yeast to generate carbon dioxide, which could sustain the photosynthesis process.

This builds on experiments at the International Space Station (ISS), and

in Russia's Mir space station and China's Tiangong-2 space lab. Astronauts have successfully cultivated plants including thale cress in these zero-gravity environments. Algae and fungi have survived for long periods on the ISS.

However, the moon represented far more severe challenges. Temperatures on the lunar surface vary between minus 170 C and plus 120 C with the day and night each lasting about the equivalent of an Earth fortnight. There is no air to mitigate the impact of sunlight, and this means a very extreme cycle of heating and cooling.

It was anticipated that the cotton plant would not survive the cold of a lunar night. The canister does not have a heating system. It does have a heat transfer system that makes it possible for it to stay relatively cool during the hot lunar day.

The death of the plants and the end of the experiment was announced once the temperature reached minus 52 C, after lunar nightfall. The plants will

presumably decay. But that will not contaminate the moon since they will remain inside the canister.

Apart from temperature swings, cosmic radiation is also very high on the moon, due to the absence of an equivalent of the Van Allen Belt, which is created by interactions between the Earth's magnetic field and solar radiation. The VA Belt blocks most of the cosmic radiation to Earth. It was also unknown how plants would respond to weak lunar gravity, at about one-sixth that of the Earth. Low gravity makes it harder for air to circulate.

We already knew that lunar soil, or at least some of it, contains enough nutrients for growing plants. However, growing plants directly on the moon will require the creation of biospheres that can control temperature, and mitigate the cosmic radiation. It will also require water and some system to ensure circulation of air and water, in low gravity.

The choice of the plants and flies is interesting. The fruit fly is perhaps, the most studied species in creation so its genome is well understood. Rapeseed yields oil (the leaf is also edible). Cotton can be used to grow clothes, make ropes, etc. Thale cress is also well-understood genetically and it has closely related cousins that are food plants. Potatoes have high calorie yield per

area which makes them a good choice if you are looking for plants spacefarers could carry. Some experiments suggest potatoes could be grown on Mars, which actually has a more hospitable environment in some ways than the moon.

The International Potato Center US Spelling proper name (CIP) in Lima, Peru, has grown potatoes inside a sealed container simulating Mars temperature, air pressure, oxygen and carbon dioxide levels. The results are positive; cameras inside the canister show sprouts growing.

However, Mars has much lower solar radiation than Earth because it's much further from the sun. This makes photosynthesis harder. It also has much lower gravity and higher cosmic radiation. It's unknown how these would affect plants and indeed, affect human beings.

These experiments, and technologies developed via such experiments, could obviously translate into better crop yields and hardier plants that could thrive in inhospitable parts of the world. They will lead to better understanding of how organisms respond to extreme conditions and high radiation. They must work, if Earth is ever to establish extra-terrestrial colonies with human inhabitants.

CHINESE WHISPERS

No more gloomy hospitals



After starting "Happiness curriculum" in schools, the Aam Aadmi Party in Delhi has now decided to extend the happiness quotient to the government hospitals of the city. As a pilot project, and to improve the "overall feel in the hospitals", the government has initiated a happiness therapy in the GTB hospital. As part of the therapy, the plan is to organise "dance and music in wards". Delhi Health Minister Satyendra Jain has taken it upon himself to visit and gauge the response to the initiative. The programme could be extended to other hospitals in the future.

Bungalow politics

After closely contesting assembly elections in Madhya Pradesh, the state's politicians are now contesting for bungalows of their choice. Congress Member of Parliament Jyotiraditya Scindia had demanded a bungalow from the previous Bharatiya Janata Party (BJP) government in May 2018. His demand was not met then. Now when his party is in power, he wants the bungalow that is held by former minister Bhupendra Singh. However, Singh seems to be in no mood to vacate. In another case, the bungalow that has been allotted to Jitu Patwari, cabinet minister for higher education, sports and youth affairs, is yet to be vacated by the BJP's Narottam Mishra. Consequently, Patwari's old bungalow that he had got as an MLA during previous term is being renovated.

Back to business

The failure of the attempted "operation lotus" in Karnataka had the Congress social media cells troll the Bharatiya Janata Party (BJP) on Thursday. The BJP had ensured that its Karnataka legislators were housed in a five-star hotel in Gurugram for the duration. On Thursday, Karnataka Congress State Unit Chief Dinesh Gundu Rao tweeted: "We extend a hearty welcome to all Karnataka BJP MLAs who are returning home after an extended holiday at a luxury resort near Delhi. Now that they are sufficiently rejuvenated let us hope they will attend to the work of their constituencies which they have neglected for long."

A bridge over the Damodar

When one reads old district gazetteers, one marvels at the wealth of material and at the reading habits of the authors



INFRA DIG

BIBEK DEBROY

The journey was fraught with fatigue and peril, and its incidents contrast strangely with the prosaic features of railway travel now universal throughout India. The Hunters journeyed by road in their own Victoria drawn by a pair, their third horse being sent forward at alternate stages... On arriving at the bank of the river Damodar the luckless travelers found it a raging torrent." This quote is from "Life of Sir William Wilson Hunter". Most people will remember William Wilson Hunter for "Imperial Gazetteer of India", Bengalis may remember him for "Annals of Rural Bengal", published in 1868. The journey just mentioned was undertaken from Suri (Siuri in Birbhum) to Midnapore (Medinipur) in 1866. Today, the distance by road is around 245 km and you will have to cross the Damodar. Despite it being NH 39 (the new NH 14), it will still take you around 6 hours. In 1866, Hunter was Assistant Magistrate and Collector of Birbhum and was probably collecting material for "Annals of Rural Bengal". In 1901, Francis Henry Skrine

published a biography of Hunter, which is there that quote is from. A district gazetteer for Bankura was published in 1905. When I read those old district gazetteers, I marvel at the wealth of material and at the reading habits of the authors.

The author(s) of the 1905 Bankura District Gazetteer had read Skrine's biography of Hunter and had aptly plugged in this bit about Hunter's travel or travail into a chapter on means of communication. To quote from the gazetteer now, "Until the year 1902 there was no railway in the district, and the easiest way of reaching it was to travel by rail to Raniganj and thence by road. The journey was not only expensive, but tedious. First, the Damodar had to be crossed... The railway now runs through the district from east to west, but internal communication is rendered difficult by the many unbridged rivers which intersect the district... Except for the deficiency of bridges, however, the road of the district are, on the whole, excellent, and practically every part is well-proved with them except the south-west corner around Raipur." Why were there roads, but no bridges? This isn't something one normally thinks about. One assumes a road would also have bridges over rivers, when required.

Let's turn to the 1908 Imperial Gazetteer for an answer. "The level plains of India, scoured by streams which, for eight months or more in each year, are passable without difficulty by the conveyances generally used in the country, offer so small an obstacle to intercourse between different localities that, up to the end of the eighteenth century, there was no demand for prepared tracks even for



Until recently, we had no clear handle on how many bridges there are on national highways and what state they are in. Thanks to IBMS (Indian Bridge Management System), we have had a "health of the bridges" survey and we know around 6000 bridges are structurally distressed, out of an inventory of more than 172,517 bridges/structures

military purposes, transport being chiefly effected by pack animals travelling along the village pathways, while travellers could ride or be conveyed in palanquins... About the same time the construction of railways began to have a considerable influence on the function and character of new roads. With the extension of the railway system, it has become more and more necessary to build roads in a direction which will enable them to feed rather than compete with the newer means of communication; and greater demand for metalled roads has also been aroused. In 1823, Mr Malony, when advocating an improvement in that portion of the GreatDeccan Road which lies between Nagpur and Jubbulpore, represented

that 'the actual amount of local produce was in excess of the consumption,' and that 'for the prosperity of the country cheap and easy communication for the exportation of the excess of produce was indispensable.' This remark states shortly the chief object with which roads were generally constructed in the first half of the nineteenth century; and as the harvest season coincided with the drying up of the rivers, there was not much need for bridges except on the great trunk roads, while even on these permanent bridges have not to this day been provided over many of the larger rivers, ferries or floating bridges doing duty in their place. The majority of early roads were, therefore, merely embank-

ments across low-lying places, with easily graded approaches to river banks, and cleared and levelled surfaces elsewhere. With the introduction of railways the circumstances altered, and there arose a demand for bridged and metalled communications which would give access to the railway line at all times of the year." There weren't any bridges because there was no perceived need for them. The advent of the railways changed this perception.

There are bridges now, but perception needs to change yet again. Until recently, we had no clear handle on how many bridges there are on national highways and what state they are in. Thanks to IBMS (Indian Bridge Management System), we have had a "health of the bridges" survey and we know around 6000 bridges are structurally distressed, out of an inventory of more than 172,517 bridges/structures. More specifically, there are 134,229 culverts, 32,806 minor bridges, 3,647 major and 1,835 extra-long bridges. Many bridges were constructed decades ago, when commercial vehicles carried smaller loads. Indeed, the survey found 23 bridges on national highways are more than one hundred years old. Those coexist with the likes of Dhola Sadiya Bridge. While we are on Bankura and the Damodar, I have read reports about several villages in Bankura's Saltora Block connected to Asansol through a bridge over the Damodar. But that bridge happens to be made of bamboo.

The author is chairman, Economic Advisory Council to the Prime Minister. Views are personal

DECODED

Subhayan Chakraborty explains why television manufacturers are threatening to shift production out of India if import duties are not reduced.

Make or import dilemma

Why has the government raised import duties?

The government has aggressively pushed to cut down on India's massive import bill for electronics, which stood at \$21 billion in FY18 and made up the third biggest chunk of the import bill after crude oil and gold. As a result, import duties on a wide range of products have seen six specific tariff hikes over the past one year. The idea was that as importing became an unviable option for manufacturers due to rising costs, they would be forced to produce their merchandise in India. This double-edged focus on value-addition, rather than simple assembling, has yielded results in mobile manufacturing. The number of units have risen from two in 2014 to 123 by the end of 2017, according to data from Hong Kong-based Counterpoint Research.

Why are electronics goods manufacturers unhappy about this move?

Manufacturers now say that while the government is effectively cutting off their access to foreign imports, it hasn't been able to create a suitable supply of components in the domestic sector at the same pace. Major manufacturers such as Samsung and LG had been critical after import duties on open cell TV panels were raised by 10 per cent in the last Budget. While it has subsequently been reduced to 5 per cent, manufacturers want it to be done away with completely because it accounts for an estimated 65-70 per cent of a television

set's production cost. Samsung has quietly wound down its TV factory and the industry is now threatening that if duties are not cut, they would find new markets to import from or would outright shift manufacturing facilities. This may mean major job losses as currently there are some 30 facilities in India providing direct employment to over 50,000 people.

Where are these manufacturers planning to shift to?

Vietnam is the nation of choice. Over the past five years, the nominally socialist nation has become a hub for engineering and electronics manufacturing as scores of Chinese companies flock over the border attracted by a 10-year tax holiday and cheaper labour. This includes many LED display manufacturers. Most importantly, Vietnam is a part of the Asean grouping of nations with which India has a Free Trade Agreement (FTA). Import duties on items imported under FTAs are either very low or are waived off. Imports from Vietnam have zoomed in the current fiscal year as those from China, the largest source, go down. Apart from these two, South East Asian nations such as Thailand and Indonesia remain the major source of LED panels imported into India since there is no local manufacturing. The share of LED sets stands at 75 per cent of the 16 million units a year TV market in India.

Is there any other industry facing a similar dilemma?

While the hikes had initially focused



on components, specifically those for mobile device manufacturing, later policies saw higher duties being placed on finished goods as well. This includes consumer durables such as speakers, air conditioners, household refrigerators, and washing machines. Since companies in the electronics sector have an integrated production — that is the same firm manufacturing multiple products — plant shut-downs for TV may have a ripple effect on the production of other products as well.

What does the government plan to do?

The ongoing tussle has resulted in a sharp rise in the import of TV panels. Estimates suggest some ₹2,700 crore worth of TV sets have been imported between April and October 2018 compared to ₹2,900 crore during the whole of 2017-18. This has riled the Commerce Department which considers reducing dependence on imports a priority after the current account deficit ballooned to 2.9 per cent of the GDP in the second quarter of the fiscal compared to 1.1 per cent

just a year-ago. But having faced success in boosting mobile manufacturing, the ministry of electronics and information technology wants to stick to the duties.

What does all this mean for the government's much-touted Make in India programme?

While the government has clarified that it does not maintain any data with regards to job generation under the Make in India programme, investments may be hit. Component industries tend to cluster around major manufactures, a point repeatedly raised by mobile giant Apple in their negotiations with the government in setting up shop in India.

The loss of big names like Samsung may dampen investment estimates, the Consumer Electronics and Appliances Manufacturers Association has told the government. A close look at the Reserve Bank of India's data shows there is a marked slowdown and contraction in Foreign Direct Investment, the first time this has happened under the current regime.

LETTERS

Play more, talk less

This refers to your editorial 'Late cuts from BCCI' (January 16). Cricket was once a gentleman's game, when cricketers played the game for the sheer pride of representing their countries. When a Sunil Gavaskar or a Bishen Singh Bedi spoke to the press, it was only about the game; never about their personal lives, or gossip about others.

However, times have changed. With the advent of shorter formats, the sport has become a money spinner, with glamour and glitter added in good measure. With money and fame going to the heads of cricketers at an impressionable age, it is but natural for some present day players to get carried away and speak their mind. As a result, they unnecessarily land themselves in trouble, as seems to have happened in the case of KL Rahul and Hardik Pandya, during the talk show *Koffee with Karan*.

The Board of Cricket Control in India (BCCI) has rightly taken exception to the sexist and misogynistic comments made by the said cricketers, suspended them from all forms of the game, besides recalling them from their tour of Australia. However, as rightly pointed out in your editorial, with the unconditional apologies tendered by the players, the proper course of action would be to send them for counselling and then reinstate them.

Subjecting them to a prolonged and a pointless enquiry would serve no purpose, other than satisfying the ego of the powers that be at the BCCI. It is also high time the board issued a gag order on the players and strictly told them to let their bat and ball do all the talking.

V Jayaraman USA

Time to introspect

The abrupt revocation by the Supreme Court Collegium of its earlier decision to recommend the appointment of Rajasthan and Delhi High Court Chief Justices Pradeep Nandrajog and Rajendra Menon to the SC has not gone down well in the legal fraternity with one of the sitting SC judges reportedly objecting the decision of the collegium. A former Delhi High Court judge too has come down heavily on the functioning of the collegium. The incident has once again raised the question: Should the judge continue to enjoy the supremacy in appointing judges through such an opaque process? A fresh look is called for.

SK Choudhury Bengaluru

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Open up coal mining

Genuine competition needed on the path to self-sufficiency

Two years ago, the government had announced that India does not need any imported coal and instructed states as well as NTPC to stop imports. However, the latest figures given by the government to the Rajya Sabha show that coal imports have grown 15 per cent in the first seven months of the current fiscal year. Reports show that states such as Tamil Nadu, Karnataka, Maharashtra and Gujarat, along with NTPC and some private units in Punjab and Madhya Pradesh, have issued tenders totalling 12.5 million tonnes. This has happened because India's domestic output has not been able to keep up with the country's demand, which grew at 7.6 per cent during April-September — the highest in the past five years. With the Lok Sabha elections just months away, the power demand is set to rise further. But the shortage of coal is just a symptom of a deeper problem.

Almost 95 per cent of India's coal mining output is by the public sector, within which Coal India Ltd (CIL) is the behemoth, accounting for four-fifths of India's production. CIL may be the world's largest coal producer, but its monopoly status has yielded little in terms of improved production techniques, superior quality of output, or, for that matter, a less dirty environmental footprint. Almost a year has passed since the coal sector was opened up for private players, but most are mired in the maze of clearances and permissions. The truth is, even as India ramps up its renewable energy sector, coal-based thermal power will continue to be a major component of its energy portfolio for decades to come. Improved coal mining and processing technologies are therefore critical for both production and the environment. Whether it is more efficient and safer mining technologies, pit-head dust mitigation, coal washing, regeneration of forests, or restoration of open-pit mines, Indian coal mining has been consistently lacking.

Enabling greater investment in coal mining has, therefore, become more critical from all perspectives, be it safety, production or ecology. Globally, mining practices have changed dramatically with significantly greater capital intensity than is the current norm in India. As India's recent experience with private sector coal mining indicates, simply allowing some private companies entry is not good enough. The future of coal mining in India requires a shift towards improved regulation monitoring and enforcement. Coal miners, including those in the public sector, need to be held directly responsible for safer and more humane mining practices, state-of-the-art environmental practices while ensuring improved efficiency in mining this non-renewable resource. It is evident that CIL by itself will not be able to achieve these objectives. The solution, therefore, is a greater role of the private sector, including global players. Since most of the important mines are already locked in the public sector, it is time to break up Coal India into smaller entities and privatise them. This will result in greater competition, investment and improved mining efficiencies as well as better safety. As the government would no longer be an owner but overseer of coal mining, it would be better able to demand improved environmental and safety practices.

Another referendum, now

The world economy cannot afford this Brexit shambles

Barely a day after suffering the greatest parliamentary loss in almost 100 years, the United Kingdom's Conservative government, led by Prime Minister Theresa May, survived a vote of no-confidence in the House of Commons by 325 votes to 306 — a relatively comfortable 19-vote majority. This was generally understood to be likely, as both her Eurosceptic colleagues within the Conservative party and her supporters in the Democratic Unionist Party of Northern Ireland had already ruled out voting against her government. Yet, Ms May was definitely weaker by the result earlier, when her painfully negotiated Brexit deal had been placed before the House and was resoundingly rejected by a margin of 230 votes. Ms May, speaking outside Number 10 Downing Street shortly after the no-confidence vote, indicated the usual — that she was still in charge, that Brexit would happen, and she would deliver it. But the path to an orderly Brexit is looking more and more complicated. There is a real and worrying increase in the chances of a "no-deal" Brexit, in which the UK crashes out of the European Union without a deal in a few weeks, a fear underlined in the response of European Commission President Jean-Claude Juncker.

It is incumbent upon all major figures in British politics to put aside petty considerations and focus on avoiding the worst-case scenario of a no-deal exit. This would be catastrophic not just for Britain and Europe but also for a world economy already pushed to the edge by doubts about oil supply and the US-China trade war. But the problem is that no faction within British politics is interested in any form of compromise. The hardliners within Ms May's Conservatives are willing to see a no-deal exit as long as their long-cherished dream of leaving the EU comes to pass. The Unionists from Northern Ireland, steeped in their province's decades of sectarian rivalry, want to avoid Northern Ireland from being treated differently from the rest of the United Kingdom at all costs. This severely limits the number of deals available to Ms May, as the UK will never countenance a "hard border" between Northern Ireland and the Republic of Ireland, which continues to be a member of the EU. For the Irish border to remain open, either Northern Ireland must stay in harmony with the EU's laws, or all of Britain must. Any deal which accepts this basic fact, however, looks more or less like the one Ms May negotiated — which Parliament has resoundingly rejected.

It is increasingly clear that, if Ms May's deal is off the table and if a no-deal Brexit is to be avoided at all cost, then the UK will have to stay with the European Union. Given the fact that no member of Parliament can afford to ignore, however, the result of the 2016 referendum, there is no alternative but to take the problem back to the people. A crisis caused by a referendum can be solved only by a referendum. It is incumbent on all parties — especially the Labour Party of Jeremy Corbyn, which so far has been impressive only in its short-term and cynical fixation on provoking a general election — to ensure that Ms May sees she has no option but to call a second referendum.

ILLUSTRATION BY BINAY SINHA



Decoding Golwalkar's ideas and their fallacy

The 103rd amendment is supposed to put reservations above caste. But Hindutva wants Indians to worship caste

Constitutional amendment number 103 has been appreciated by our middle class, the core votaries of Hindutva. The opening up of reservations to all demonstrates the view that Hindutva is inclusive. Other parties are divisive because of their propensity towards casteism but, and this is the thinking, the Bharatiya Janata Party is above caste.

But is it? Does it reject caste and if not, then what sort of relationship does it have with the primary faultline in Hindu society? Hindutva like other ideologies based on nationalism and religion does not produce thinkers so much as believers, and so there is a dearth of material. It is intellectually underpinned by the thinking of one great man, M S Golwalkar, who led the Rashtriya Swayamsevak Sangh (RSS) for over 30 years from 1940 and is the individual responsible for its ideology and its success.

The prime minister has written a fawning biographical sketch of Guruji Golwalkar (whom he never met), comparing him to Buddha, Mahavir and B R Ambedkar. If there is a Hindutva view of caste, it comes from Golwalkar and so let us examine it.

Golwalkar's main work is a book called *Bunch of Thoughts*. As the name suggests, it is not particularly unified and is scattered, offering his opinion on several things, mostly about how much he dislikes Muslims, who are enemies of India by birth.

He defines Hindus as being those people with the "urge for realisation of God". However, this was not God in the form that most people identified with, Golwalkar wrote, but a living god and not an idol or

immaterial form. "*Nirakar* (formless) and *Nirgun* (without attribute) and all that leads us nowhere." Idol worship "does not satisfy us who are full of activity". We want a 'living' God, which will engross us in activity and invoke powers within us."

This living God was the Indian nation, but according to Golwalkar, the nation-god did not include all communities but only one. In his words:

"Our People Are Our God, is what our ancients told us. But not all people. Ramkrishna Paramhans and Vivekanand said 'Serve man'. But Man in the sense of humanity is too wide and cannot be grasped. It should be an Almighty with certain limitations. Man here means Hindu People. Our ancients did not use the word Hindu but they did say in the *Rig Ved* that the sun and moon are His eyes, the stars and King the hands, *Vaishya* the thighs and *Shudra* the feet."

He continues: "This means that the people who have this fourfold arrangement i.e., the Hindu People, is our God." Service to this society is the service to God. This caste-based society should be worshipped in place of the self.

To Golwalkar, social order through caste is not discrimination. The feeling of high and low in caste is of recent origin, "scheming Britisher" "divide and rule policy". The Gita says that individuals who do their assigned caste duty are worshipping God.

Indeed, he saw the caste system as beneficial to India instead of destructive. The Dalit intellectual,



REPLY TO ALL

AAKAR PATEL

Modi Sarkar's final frontier

It is a terrible thing to do but one must start by stating what is painfully obvious: Narendra Modi seems to be finding out that five years is too long a period for him to carry on as prime minister without having much to show for it. For the longest time, the government jumped from one slogan to another and from one policy announcement to another, spinning the news like there is no tomorrow.

Nowhere was this more pronounced than on the issue of employment. Mr Modi started his tenure with the promise of an obscene number of jobs. But when, especially after the demonetisation debacle, that promise was unravelling, his government stressed the importance of self-employment. Mr Modi notably said that jobs were being created but what was lacking was the data for it. Indeed, for a while, the government even claimed that, based on the payroll data, millions of new jobs were being created in the economy. Before long that myth was busted when independent sample surveys showed that actually millions of jobs were lost.

The other big area where Mr Modi's failure was rather pronounced was the status of Indian farmers. His government had come to power berating the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). He characterised the MGNREGS as the monument of the Congress party's failures. Indeed it was to a great extent because the MGNREGS was to provide a safety net for those who lost out in the economic growth story. The more people this net caught the more it was evident that India's growth story was not inclusive. Mr Modi's government promised a sound and effective food policy to ensure better remuneration for farmers and berated the Congress' politics of dole. Five years down the line, the MGNREGS budget has swelled further, albeit its administration continues to be just as poor.

Lack of jobs in urban India and farm distress in

rural India are the two key things that have hurt Mr Modi more than anything else. The season of electoral reversals started with the Gujarat Assembly polls, where the Bharatiya Janata Party (BJP) barely managed to stay in power. But the results on December 11, where the BJP lost three big states in the cow belt and that too to the Congress, have made it amply clear to anyone who is observing that the days of the so-called "*Modi Sarkar*" — that is, a government which is essentially an embodiment of Mr Modi's approach — are numbered. And no one knows this better than Mr Modi and his astute lieutenant Amit Shah. That is why Mr Modi is now trying to break through the final frontier — the Indian Constitution — in his bid to locate a *santajevani booti* and revive the chances of re-election of his ailing government (no pun intended). Till now this has resulted in two key changes.

One relates to making it easier for Hindus as well as people belonging to five other religious groups to get Indian citizenship if they are trying to escape "religious persecution" in Bangladesh, Pakistan and Afghanistan. But the most curious thing about this Bill, which is still pending in the Rajya Sabha, is that while it appears large-hearted about the troubles of Hindus in some neighbouring countries, it also targets (that is, rules out) Muslim refugees from these very countries (such as those belonging to the Ahmadiyya sect in Pakistan). Moreover, it also ignores the troubles of Muslim refugees in other nearby countries such as the Rohingyas of Myanmar. For a country which has a Constitution that promises, under Article 14, "equality before law" to all its citizens, such cherry-picking of refugees not only goes against the spirit of the law but is downright condemnable for not being in line with India's secular credentials. It is another matter that this amendment can be used, and perhaps that's the point, as a cynical tool to polarise voters.



CLAY SQUARE

UDIT MISRA

How paradise was lost



BOOK REVIEW

SHYAM SARAN

Radha Kumar has had a long association with Jammu and Kashmir, initially as a scholar and historian, later as political analyst and eventually as one of the three interlocutors for Kashmir appointed by the United Progressive Alliance government in 2010. Her latest book, *Paradise at War*, is a very readable history of Kashmir, highlighting its hold on the Indian imagination as a land steeped in ancient Hindu and Buddhist myths and legends and later its own unique and accommodating brand of Sufi Islam. The focus is inevitably on the

between India and Pakistan and whose inhabitants are either courted or targeted by the Indian state in endless cycles of reconciliation and suppression.

It is the Valley that makes the state unique in many ways. It has deep affinities with India's religious and cultural spaces. Less acknowledged is that its innately plural, secular and composite culture stood for what the newly independent India wanted to be. The book makes one realise how much our failure in Kashmir is a reflection of the relentless erosion of cherished values we collectively enshrined in our Constitution. Ms Kumar demonstrates how much the Pakistan factor influenced the responses of the Indian state to happenings in the Valley. Confronting the hostility of Pakistan exacerbated fears that the people of the state could not be trusted to uphold its accession to India.

The book underlines the costly mistakes that Jawaharlal Nehru made in the immediate aftermath of India gaining inde-

pendence and for which the country continues to pay a heavy price. There was no reason to make the accession of Jammu and Kashmir to the Indian Union conditional. No other princely state that acceded to India or to Pakistan was accorded the privilege of ascertaining the Will of its people thereafter to legitimise the accession.

Nehru and other Indian leaders appear to have been easy victims of British connivance and duplicity despite all evidence to the contrary. There may have been risks in continuing military operations against Pakistani forces after the Valley had been secured but surely, there should have been an awareness that the loss of Gilgit and Baltistan would cut India off from its Central Asian neighbourhood quite apart from threatening the Valley itself. Taking the Kashmir issue to the United Nations was another blunder and successive generations of Indian diplomats have expended much time and energy trying to fend off international activism on Kashmir. Ms

Kumar has shown convincingly how many of the challenges we confront today can be traced back to those early blunders.

Paradise at War brings out the inescapable link between peace in the Valley and peace between India and Pakistan. Hostility between India and Pakistan and armed clashes at the Line of Control (LoC) heighten risk perceptions among security forces operating in the Valley, leading to the imposition of measures that are intrusive and demeaning. This worsens alienation among an already disaffected population. Pakistan then has a more congenial environment to promote cross-border terrorism, spread disaffection in the Valley and an escalating cycle of violence takes hold.

It was in the 2003-2007 period that India and Pakistan were engaged in a serious effort to achieve relative peace and establish normal state-to-state relations. This was also a period of relative calm in Kashmir

Ms Kumar has written knowledgeably about the back-channel talks that took place during this period and what may have been achieved as a common understanding on the lines advocated by then Prime Minister Manmohan Singh — to establish a soft border allowing a relatively free flow of peoples and goods and allow the celebration of the strong cultural affinities shared by the people on both sides of the border and LoC. In time, the status quo would have become legitimised. This would be possible to sustain only if Pakistan abandoned its reliance on cross-border terrorism as an instrument of state policy. This brief window of opportunity mostly evaporated once Musharraf, the then Pakistani leader, ran into serious domestic political turmoil in 2007.

The author has devoted a longish chapter on her experiences as a government interlocutor interacting with a very broad spectrum of people in Kashmir. Her accounts convey the deep sense of loss of dignity and respect among a people subjected daily to demeaning encounters with security forces. This has to change for any progress to be made.

The concluding chapter considers a "faint hope for a peace process". After rigorously analysing various possible scenarios, she concludes, as one would have expected, that the contours of the understanding arrived at in the back channel talks still represent the most promising way forward. There should be a resumption of the peace process with Pakistan paralleled by an intensive dialogue process with the dissident and separatist elements in the Valley with the hope of arriving at a solution that all three can live with. The problem is that the conjunction of regional and international developments, which enabled the earlier peace process, no longer exists.

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