



## The fading patriarch

The Congress has set in motion a series of events in Punjab that it can no longer control

Former Punjab Chief Minister Amarinder Singh has announced plans to launch a new political outfit and explore an arrangement with the BJP, ahead of next year's Assembly election in the State. The BJP is warming up to the idea. The proposed new party and its partnership with the BJP is an act of expediency and opportunism of high order by both sides. The Congress had forced Mr. Singh to quit as the Chief Minister in September, bringing an abrupt end to his role at the helm of party affairs in the State. The reasons for his removal were not just, but his decision to quit the party that he has been associated with for four decades says something unflattering about Mr. Singh. That he could think of joining hands with the BJP without batting an eyelid also shows that there is little more than a sense of entitlement in his politics. The Captain has been a central character in Congress politics, particularly in the years following the rise of the BJP in 2014. He led the party to victory in Punjab in 2017, and in 2019, the Congress's performance in the Lok Sabha polls in the State was outstanding. After all that, Mr. Singh has chosen to cap his long political career by sleeping with the enemy.

The BJP is a marginal player in Punjab, and the ongoing controversy over three farm laws has further alienated it from the entrenched farming communities in the State. The debate on the merits of the farm laws apart, the BJP also questioned the patriotism of the protestors. The party is now hoping for an outreach to the Sikh farmers through a partnership with the Captain. Whether it can offer any compromise that the farmers might find palatable remains to be seen. The Congress high command cannot absolve itself of the mess in the State. It decided to unsettle its own government for no apparent reason, and elevated a turncoat to lead its State unit. The party appointed a Dalit Sikh as Chief Minister in place of Mr. Singh, which is a bold experiment that is fraught with fresh problems. If it can mobilise public opinion in favour of its social justice politics, the Congress can remain in the reckoning. The Akali Dal, having parted with its long-term ally, the BJP, is now hoping to gain from the confusion arising out of the crisis in the Congress. The Congress has set in motion a series of events that it is no longer in control of. It also appears incapable of recalibrating its strategy for the State. With an untested Chief Minister and a conceited party chief in command, the party finds itself in an unenviable position in Punjab. The desertion by Mr. Singh makes its prospects considerably worse. While it might be too late to keep the former Chief Minister in the fold, the least the Congress high command can do is to strengthen the hands of Chief Minister Charanjit Singh Channi and not give the impression that he is keeping the seat warm for the maverick Punjab unit chief of the party, Navjot Singh Sidhu.

## Shorter and shorter

Indian cricket is in transition phase as the ICC T20 World Cup gets underway

The Twenty20 format seems to be cricket's overwhelming flavour at present. Close on the heels of the Indian Premier League, the ICC T20 World Cup commenced last Sunday. Both championships dropped anchor in the United Arab Emirates (UAE). Originally, they were scheduled to be held in India but the COVID-19 pandemic forced a change in venue. The Board of Control for Cricket in India shifted the franchise-based league and the multi-nation event to the UAE and many players have seamlessly moved on from club to country. Nearly a week has lapsed since the latest T20 World Cup made its initial steps under the West Asian skies during which lesser placed teams tried to qualify for the Super 12 segment that formally starts today. This, in fact, is the real deal. And nothing can get bigger than the Super 12 Group 2 match that pits India against Pakistan in Dubai on Sunday. In ICC events, India holds the edge over its neighbour beyond the Radcliffe Line but for a vast generation of fans, cricketing skirmishes involving the two in the UAE often draw in a difficult memory. Not many can forget Javed Miandad clouting a last-ball six off Chetan Sharma and winning for Pakistan the Austral-Asia Cup in 1986. From then on, India was on the ascendant.

This trend was especially evident when M.S. Dhoni's men won the inaugural ICC World T20, as the shortest format's World Cup was then called, in South Africa in 2007. The vanquished opposition was Pakistan and those shards of history will lend an edge to the latest bout. But after winning the title in 2007, India has subsequently flattered to deceive. Meanwhile, Virat Kohli gets another chance to lay his hands on ICC silverware, which remains a missing link in his captaincy resume. That he is also giving up his T20 captaincy after the championship should push him further towards this goal. Dhoni's presence in the dressing room as a mentor, while the coaching staff led by Ravi Shastri prepare to bow out after a few weeks, is indicative of the imminent leadership transition within the Indian ranks. With its players having featured in the previous IPL and the added confidence gleaned from the warm-up victories over England and Australia, India is in a good space. Defending champion West Indies, Australia, South Africa, England and New Zealand may fancy their chances but this tournament isn't entirely about the established units. It is also about Scotland pushing its way in or Afghanistan turning up despite the turmoil back home. Hope floats and India yearns to finish on the winning side when the championship ends on November 14.

# Development that is mindful of nature

Course correction is inevitable in Kerala, which seems to be trapped in a mindless consumerism that is threatening its future



PULAPRE BALAKRISHNAN & SRIKUMAR CHATTOPADHYAY

Environmental disaster has struck Kerala once again. Unusually heavy rains have caused landslides in Kottayam and Idukki. By October 21, 42 deaths were recorded, and the monsoon is not yet in recess. Such a high loss of life must lead to a serious review of the land-use pattern in Kerala. With a population density of 860 persons/sq. km against an all-India average of 368 persons/sq. km (Census 2011), Kerala experiences very high pressure on the land.

### Land-use change

Historically, most of the settlements were concentrated in the coastal plain, the adjoining lowlands and parts of the midlands. However, this scenario has altered now, with significant land-use change across topographic boundaries. Population growth, agricultural expansion, economic growth, infrastructure development — particularly road construction — and intra-State migration have all led to settlement of the highlands. Kerala is experiencing high growth of residential buildings. The Census records that during the decade between 2001 and 2011, the population grew by 5% whereas the number of houses grew by 19.9%.

Such a pace of construction has serious implications for the environment. Not only the locations for siting settlements but also the demand for construction materials, with the attendant quarry-

ing and excavations, is altering the landscape through terracing, slope modification, rock quarrying, and the construction of roads. The basin characteristics of all rivers have been altered. This has resulted in gross disturbance of the character of the terrain evolved through weathering and formation of soil under natural vegetation cover. Consequently, the water-absorbing capacity of the river catchment is lost, contributing to increasing surface run-off and reduction in ground water recharge. Road construction in hilly areas, even when cutting across the toe of the slope, is destabilising and creates conditions conducive to landslides.

Construction on hill slopes prone to disintegration during heavy rain is a threat not only to those who choose to live in the buildings but also to those who are in the path of the debris that gets dislodged in a landslide. It is clear by now that in parts of the State the hills have been overbuilt, posing a danger to life. Interestingly, the extremely complicated rules for registration of purchase and sale of property in Kerala are not matched by a due diligence of building plans. It is not even clear that the authorities responsible for the oversight of construction are sufficiently aware of the nature of the problem. While the idea of a construction-free Coastal Regulation Zone, instituted by the Government of India and applicable to the entire country, is fairly well recognised in the State, the Government of Kerala has been timid in enforcing similar regulation in its own backyard. The hesitancy towards the implementation of the recommendations by the Western Ghats Ecology Expert Panel, commonly known as the Gadgil Committee, on protection of the Western Ghats is the best example of



AFP

### Review of two projects

While evolving a land-use protocol to be observed in all cases without exception cannot be delayed any further, it is understandable that it may take time. However, the most recent landslide in Kerala should lead the government to immediately review two major projects with a potential to lower ecological security.

The first of these is the Silver Line project, a light railway connecting the two extremities of the State. Its potential to usurp agricultural land and cause ecological disturbance is well known. The claim that it is vital to the development of the State, reportedly made by the government in the Legislature, is debatable. After all, a railway line exists across the entire length of the State already, and how much a saving of a few hours' travel time can contribute to the gross domestic product is not clear at all. While infrastructure for growth is necessary, Kerala's deficit is less with respect to transportation than what it is to power generation, urban infrastructure and a well-trained workforce. As the Kochi Metro network was being expanded, a prominent entrepreneur of the city rightly observed that it needs a sewage disposal system more than it needs a rapid transit network.

While the Silver Line project has been in the news, what has not been is the widening of the high-

way currently taking place in parts of the State. Entirely under the authority of the Government of India, this has involved mass felling of trees and the removal of habitation on both sides of the road. Overnight, tree-lined roads have been converted to bare tarmac exposed to the sun. The loss of vegetation and tree cover is sure to have an impact on local climate and water retention, impacting its availability. The question that comes to mind is whether the Government of India has consulted the people affected or just used the principle of eminent domain to have them evicted. No one wants to lose their home even if they are compensated at the market rate. Can we be sure that the social gains exceed the losses?

### Technical expertise needed

Kerala's longitudinal topographic grain combined with its east-west-running rivers gives rise to an alternating ridge-valley land form. Given this feature, construction of roads or any structure with a north-south alignment involves cutting across the valleys and lowlands, impacting natural drainage and overall landscape ecology. Therefore, development interventions should be cautious and ecologically sensitive to avoid unwarranted consequences and to be sustainable. We would ask if the governments concerned have conducted anything like a cost-benefit analysis in the two cases we have highlighted. Of course, evaluating ecosystem services lost in a developmental overdrive is a difficult exercise, but that it is so flags what we are pointing to. We often don't even know the economic consequences of our actions towards nature. Rather than acknowledging this, all signs are that we proceed with disdain in the name of development. Technical expertise is

needed when re-engineering the earth, with the teams including earth scientists, independent public policy experts, elected representatives and citizens from the affected areas. There is no hurry in proceeding with the light railway or of adopting a 'one nation, one highway specification' in densely populated and ecologically vulnerable regions of the country. Rushing through these projects in the face of intimations from nature, such as landslides, that we are vulnerable would really be a case of fools rushing in where the wise refuse to tread. New railway lines and highway widening should be undertaken only after public hearings open to citizens.

Kerala's achievements in human development are legion. However, it can no longer rest on its laurels in this area, ignoring the relentless assault on its natural assets. It is by now clear that the destruction has elicited neither an intelligent public policy response nor a citizen's movement of sufficient strength to contain the gathering ecological insecurity. In some ways Kerala led States in showing that development is not synonymous with economic growth. But now it seems to be trapped in a mindless consumerism that is threatening its future. Course correction is inevitable. Even the United Nations Development Programme, which had pioneered the human development approach, has proposed a Planetary-Pressures Adjusted Human Development Index that weighs a country's human development for its ecological footprint. Living in the Anthropocene, we need to guard against any further damage to the natural world.

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# A clean energy transition plan for India

It also demonstrates a commitment to climate change mitigation by optimising resources with indigenous technology



A.V. KRISHNAN & R. SRIKANTH

Energy security warrants the uninterrupted supply of energy at affordable prices. India faces the twin challenges of meeting the aspirations of its 1.3 billion population even as it safeguards its energy security and contributes to global efforts to mitigate climate change. Thanks to the Electricity Act of 2003, the installed coal-fired thermal power plant (TPP) generation capacity in India more than doubled from 94 GW to 192 GW between March 2011 and 2017. This sharp increase in the installed capacity has enabled the government to increase per capita electricity consumption by 37% while reducing peak demand deficit from 9.8% (2010-11) to 1.6% (2016-17). However, India has a long way to go in providing electricity security to its people since its per capita electricity consumption is still only a third of the global average.

### Thermal plants are the core

Coal is the only fuel that India has in abundance and the geopolitics of India's neighborhood do not permit ready access to piped natural gas. TPPs contributed 71% of the 1,382 billion units (BU) of electricity generated by utilities in India during FY 2020-21 though they accounted for only 55% of the total

installed generation capacity of 382 GW (as of March 2021). Coal, therefore, plays a vital role in India's ongoing efforts to achieve Sustainable Development Goal 7, which is "to ensure access to affordable, reliable, sustainable and modern energy for all".

### Renewable energy

While variable renewable energy (VRE) sources (primarily, wind and solar) account for 24.7% of the total installed generation capacity, as of March 2021, they contributed 10.7% of the electricity generated by utilities during FY 2020-21. However, the ramp-up of VRE generation capacity without commensurate growth in electricity demand has resulted in lower utilisation of TPPs whose fixed costs must be paid by the distribution companies (DISCOMs) and passed through to the final consumer.

The rapid growth of VRE sources in India has been largely aided by policy measures as well as financial incentives whose cost is borne by the consumer. The current level of VRE in the national power grid is increasing the cost of power procurement for DISCOMs, leading to tariff increases for electricity consumers. Specifically, the Forum of Regulators has estimated the total additional burden of grid integration of VRE sources includes ₹1.11 of balancing cost and ₹1.02 of stranded capacity cost, totalling ₹2.13 per unit. Therefore, India must implement a plan to increase energy efficiency and reduce the emissions of carbon dioxide (CO<sub>2</sub>) and airborne pollutants from TPPs without making power



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unaffordable to industries that need low-cost 24x7 power to compete in the global market.

### Contours of a plan

We have developed a time-bound transition plan for India's power sector involving the progressive retirement of 36 GW of installed generation capacity in 211 TPPs (unit size 210 MW and below) based on key performance parameters such as efficiency, specific coal consumption, technological obsolescence, and age. The resulting shortfall in baseload electricity generation can be made up by increasing the utilisation of existing High-Efficiency-Low-Emission (HELE) TPPs that are currently under-utilised to accommodate VRE and commissioning the 47 government-owned TPPs (total capacity of 31.6 GW) that are at an advanced stage of construction in which ₹1,77,742 crore have already been invested by government utilities. These TPPs have already signed power purchase agreements with the respective DISCOMs; and thanks to the two-part tariff policy, their fixed costs must be borne by power consumers irrespective of

their usage. In addition, the Nuclear Power Corporation of India Limited (NPCIL) is also constructing 11 nuclear power plants with a total generation capacity of 8,700 MW that will supply 24x7 power without any CO<sub>2</sub> emissions.

### Capacity increase

With the implementation of our transition plan, the total installed capacity of TPPs operated by utilities will increase from the current level of 209 GW (as of September 2021) to 220 GW by FY 2029-30 even after retiring 211 inefficient and obsolete TPPs that are more than 25 years old and need major sustenance capital expenditures (Capex) for life extension, modernisation, and retrofit of flue gas desulphurisation plants (FGDs). The combined thermal (220 GW) and nuclear (15 GW) capacity of 235 GW can meet the baseload requirement (80% of peak demand) during the evening peak in FY 2029-30 without expensive battery storage, while the optimal utilisation of existing and under-construction HELE TPPs with faster-ramping capabilities and lower technical minimums also facilitates VRE integration.

As per our transition plan, India's power generation from TPPs is expected to reduce from the FY 2020-21 level of 71% to 57% of the total electrical energy (2,172 BU) projected to be generated by utilities during FY 2029-30. Further, the share of HELE TPPs in the total TPP generation capacity will increase from the FY 2018-19 level of 25% to 44% in FY 2029-30. More importantly, the share of ineffi-

cient TPPs with obsolete technology in the total TPP generation capacity will reduce from the FY 2018-19 level of 46% to 4%. Consequently, total CO<sub>2</sub> emissions from the power sector will go down by 57 Mt even as coal-fired electricity generation is projected to increase by 21% to 1,234 BU in 2029-30.

### Estimated benefits

Since HELE TPPs minimise emissions of particulate matter (PM), SO<sub>2</sub>, and NO<sub>x</sub>, our transition plan offers operational, economic, and environmental benefits including avoidance of sustenance Capex and FGD costs in the 211 obsolete TPPs to be retired besides savings in specific coal consumption and water requirement leading to reductions in electricity tariffs and PM pollution.

This plan prioritises the installation of high-efficiency electrostatic precipitators that can remove 99.97% of the PM pollution without extensive shutdowns or hiking tariffs unlike expensive, imported FGDs. The implementation of this plan will enable India to safeguard its energy security and ensure efficient grid operations with lower water consumption, PM pollution, and CO<sub>2</sub> emissions. Ultimately, this plan demonstrates India's commitment to climate change mitigation by optimising the use of our land, coal, water, and financial resources with indigenous technology.

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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.

### A remarkable milestone

India should be proud of reaching this milestone ("India crosses 100 crore COVID-19 vaccine doses", Oct. 22). However, we need to speed up the vaccination programme, as only about 31% of adults are fully vaccinated. There has to be a concerted campaign to persuade adults vaccinated with the first dose to get their second dose. This is essential because surveys in countries such as Israel and the U.K. indicate that the "protection against catching the virus wanes significantly after five to six months". Some nations

have already started administering booster doses to the fully vaccinated. The recent surge in cases in the U.K. has been attributed to the waning immunity of the vaccinated, less mask-wearing, and increase in gatherings. The task of full vaccination needs to be completed quickly in India as those who were vaccinated in the first half of this year may need a booster dose in the first half of 2022, depending on their immunity levels. We cannot let our guard down.

KOSARAJU CHANDRAMOULI, Hyderabad

This is a wonderful achievement, especially since the situation looked extremely grim in 2020 during the first wave and then again during the second wave this year and people were desperately praying for a vaccine. This is a time to thank researchers, lab technicians, scientists, doctors, health workers, nurses, ambulance drivers and all those who helped citizens during the worst times.

SANATH KUMAR T.S., Thrissur

While this achievement is

commendable, India could have been in this place a few months ago and avoided hundreds of deaths if the government had increased vaccine orders earlier and not focused solely on its export commitments believing that the worst was over. The government's initial complacency ended up hurting the economy too. Our leaders mostly disappeared during the second wave of infections and seem to be communicating more now with the public as there is reason to celebrate. It is great that the government

learnt from its mistakes regarding vaccines and ensured a quicker pace of vaccination thereafter, but we cannot forget the lives lost in the process.

CORRECTIONS & CLARIFICATIONS: >> In an Op-ed page article titled "No place for women in Karnataka" (Oct. 21, 2021), in the penultimate paragraph there was a reference to Sri Rama Sene. It should have been Sri Rama Sene Hindusthan, a splinter group of Sri Rama Sene. Also, a sentence in the paragraph that erroneously mentioned that no arrests had been made (in the murder case of Arbaaz Aftab Mullah) should be recast to say: "Though arrests have been made in this murder case, the district president of the organisation, Kamakant Konduskar, has lauded the actions of the Sene in saving 'hundreds of innocent girls' from Muslim men."

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