Opinion

WEDNESDAY, APRIL 3, 2019

PROSPEROUS PHILANTHROPY

Amitabh Kant, CEO of NITI Aayog

"Philanthropy should be combined with technology & innovation, which has the potential to make real grassroot level changes. Philanthropy will be a catalyst of growth and development in India"

Boost for defaulters, blow to NPA-resolution via IBC

By striking down RBI's Feb 12 circular, SC has made it more difficult for banks to recover loans from defaulters

THE SUPREME COURT'S decision to declare RBI's February 12 circular on resolving stressed assets—defaulters, in plain English—as *ultra vires* is a big blow to banks that were looking for an early resolution to bad loans. Indeed, with this Supreme Court judgment, even the ongoing Jet Airways resolution can take a hit. While RBI can file a review petition, not too many review petitions get upheld. Till this circular was issued, banks had a series of mechanisms to resolve bad loans—Corporate Debt Restructuring (CDR), S4A, etc—but the success achieved was very poor. RBI disbanded all these schemes and said that, henceforth, just the Insolvency and Bankruptcy Code (IBC) would be used. If after even a day of default, this is not fixed, and no solution is hammered out in 180 days, the case would automatically be sent to the IBC. This was critical since, under political or other pressure, defaulters were able to find ways to get the banks to keep postponing a resolution of their debt on one account or another. With the February 12 circular, however, putting a 180-day timeline, there was a lot of pressure on defaulters; if they didn't make good their loan payments, they could lose their company. Indeed, a large part of the repayments under the IBC have taken place outside the system; several defaulters started repaying loans to ensure their firms didn't go to the IBC.

Many have argued that the IBC was a one-size-fits-all and that the Supreme Court did well to strike it down. It has also been argued that, very often, the default is not the promoters' fault, so why should he be penalised? It is also argued that it is banks that should take a decision on whether to go to IBC and not RBI. There are many problems with these arguments. For one, it is because the other solutions like CDR or S4A didn't work that the IBC route was chosen. Secondly, depending upon the political dispensation, amongst other reasons, banks could delay a resolution and keep giving more time to the defaulters; the February 12 circular took this discretion out of the hands of bankers.

It is true, as *FE* has written before, that the defaults are not always due to the fault of the promoters. In the power sector (*bit.ly/2UaMiPD*), around a fifth of the 52,000 MW of stressed power assets are gas-based ones where the plants simply don't have fuel since the government policy no longer accords the same priority to power plants when it comes to allocating scarce local natural gas. Another 10,000 MW of assets are stressed because they are based on imported coal and the price of this has shot up and the SEBs are not willing to pay for this hike despite the Central Electricity Regulatory Commission (CERC) coming up with a solution more than five years ago. Around 20,000 MW of power plants are stressed as they don't have long-term power purchase agreements (PPAs) since SEBs are simply not signing them as they don't have the money to do so. Huge SEB dues to power producers are another reason for the default. In the sugar sector, a defective government policy that forces mills to buy all the cane produced and at an exorbitant price is at the heart of the default. But similar problems will apply to all loans, and just because government policy is at fault doesn't mean banks—and through that, taxpayers—have to pay for this. India continues to suffer from years of slow investment because of the twin balance sheet crisis where both banks and corporates are financially stressed. The IBC and the February 12 circular were a way to resolve the issue, but the SC has now dealt a blow to the resolution. Banks, it is true, can still go to the IBC, but with the automatic referral gone, the power over defaulters has been whittled down.

More Congress populism

Fiscal profligacy, farm-loan waivers, judicial reservation...

THE CONGRESS PARTY'S manifesto makes for great election rhetoric, but if the proposals are rolled out, they could prove ruinous for the economy. Every proposal, starting with the Nyuntam Aay Yojana (NYAY), or increasing guaranteed employment under MGNREGA to 150 days a year, entails big expenses; the promise to waive outstanding farm loans across the country will worsen the credit culture once again and increasing 'representation at all levels of the judiciary for women, SC, ST, OBC, minorities and other under-represented sections' is fraught with danger. The party has rightly identified the vulnerable sections of the population—the poor, farmers, the sick, youth and the common man—and the poll promises are sure to resonate with all them. The ace in the pack, NYAY—₹72,000 annually for 20% of the poorest households in the country—is more generous than the ₹6,000 for farmers being doled out by the NDA, but it will cost a staggering ₹3.6 lakh crore. Unfortunately, the Congress has not clearly spelled out how it intends to get the revenues for all the welfare schemes. If the Congress intends to raise taxes—there are hints of a high tax for the rich—it should say so upfront. While the spokespersons claim they will not give up on fiscal prudence and promise a fiscal deficit of 3% by 2021, the math simply doesn't add up.

In fact, all the employment-creation schemes outlined will drive up government expenditure; four lakh vacancies in the government and judiciary are to be filled by March 2020, and 10 lakh *seva mitras* are to be recruited by gram panchayats and local urban bodies. The 10 million jobs to be created by employing people in repair and restoration of water bodies and regeneration and afforestation of wasteland—if at all this is feasible—are to be paid for by the gram sabhas and urban local bodies. There is little doubt the NDA has not been able to create as many jobs as are needed, but the Congress proposals cannot jumpstart the economy even if the multiplier effect, by some magic, works better under a Congress government. It is the private sector that needs to hire and, for that, the business environment needs to be made more friendly through easier labour laws, quicker environment clearances and clear-cut and irreversible regulations. Promising forbearance for small and micro units is all very well except that key laws that have always been a hindrance for employers—minimum wages and other labour legislation—will remain in effect.

Lowering the effective direct tax for one set of sectors, simply because they are employment-generating, is unlikely to do the trick. Also, typically, permissions are sought at the state level and so the Centre can't really do too much; and there are very few Congress-ruled states. Given the distress in the farm sector, it comes as no surprise the Congress has gone all out to woo farmers; it will not stop at loan waivers, it says, but will ensure farmers earn a remunerative price for crops, get access to institutionalised credit and inputs at lower costs. The obvious thought that comes to mind is "show me the money".

FacingFake

Facebook does well to block pages for "coordinated inauthentic behaviour" in a bid to stem the misinformation tide before the polls

ON MONDAY, SOCIAL media giant Facebook announced that it had removed more than 1,000 pages on its platform from India and Pakistan in four distinct, unrelated and separate moves. Nathaniel Gleicher, Facebook's head of cybersecurity policy, stated in a blog post that more than 1,000 pages and accounts were removed due to security reasons. In one action, the company declared that it eliminated around 103 pages, groups and accounts on both Facebook and Instagram that originated in Pakistan for engaging in 'coordinated inauthentic behaviour'. Apart from this, the company also suspended 687 Facebook pages linked to individuals associated with the IT cell of the Congress and 15 pages, groups and accounts that had connections to an Indian IT firm, Silver Touch, the makers of the NaMo application for prime minister Narendra Modi, also on account of 'coordinated inauthentic behaviour'. Finally, a further 321 pages and accounts from India were deleted for breaking company rules regarding spam. The company clarified that while 'coordinated inauthentic behaviour' might include the sharing of "fake news" or factually incorrect information, this is not a necessary condition. The main identifier is an organised attempt to mislead.

Facebook's role in spreading fake news first came into prominence in the probe into the allegations of Russia influencing the American presidential elections. With the Indian parliamentary elections commencing in less than ten days, all eyes are Facebook and other social media/insta-messaging services to see how they are used to impact voter decisions. Facebook has also announced its plans to start an operations centre in Delhi, which will work with its offices at Menlo Park, Dublin and Singapore, on a 24x7 basis to monitor political content. It is also working with the Election Commission of India to monitor and regulate content on its platform as well as to implement the election body's model code of conduct. Controlling the flow of misinformation and bigotry online is a gargantuan task and will take time, effort and coordination, but Facebook has started out on the right path.

MONETARY STIMULATION

THE ANTICIPATED HIT TO INDIA'S GROWTH FROM GLOBAL HEADWINDS IS UNLIKELY TO BE OFFSET BY DOMESTIC DEMAND, HENCE THE NEED TO STIMULATE DOMESTIC DEMAND VIA MONETARY ACTION

MPC should step up with a 50 bps rate cut

RAJEEV MALIK

Founder and director, Macroshanti Pte Ltd, Singapore. *Views are personal*

POLITICAL THEATRICS IN the run-up to the upcoming general election are expectedly in full swing, with economic claims and counter-claims, and lollipops to voters carving out a noisy looped life of their own. Against this backdrop, there appears to be incrementally less intensive focus on this week's announcement by the monetary policy meeting (MPC)—compared with its recent meetings. The dollar-rupee swap announced by RBI to provide durable liquidity is a major shift that also diminishes the scope for additional significant action on liquidity. A 25 bps cut in the repo rate, to 6%, appears to be in the bag. However, there is a strong case that the combination of a benign inflation outlook, the anticipated downward revision to GDP growth, softening global demand, and the recently revised interest rate guidance by the FOMC strengthens the case for an outsized 50bps cut, to 5.75%.

At the last meeting in February, MPC members unanimously revised the policy stance to "neutral" from "calibrated tightening", but were split 4-2 in cutting the repo rate 25 bps to 6.25%. The lower-than-target inflation wasn't the only reason behind the outcomes of the meeting; the members also expressed concerns about India's growth outlook. Given dark clouds over global growth dynamics, these concerns warrant concrete policy steps to cushion against the likely adverse impact on India's growth. The MPC outlined in February that headline inflation would remain slightly below or at the official target of 4% over the next one year. This assessment will probably be reaffirmed this week, creating room for stronger rate action to aid growth. Indeed, the MPC should capitalise on the opportunity to frontload the available room for easing. It should cut the policy repo rate 50 bps now rather than, say, announce a cut of 25 bps now and another 25 bps reduction at the next meeting in two months.

CPI inflation jumped to a four-month high of 2.6% in February due to costlier food items. Howwever, headline inflation remains well below the MPC's medium-term inflation target of 4%. Food inflation is poised to move into positive territory, though the pace and magnitude of the adjustment carry considerable uncertainty. Core inflation eased slightly, but still remains elevated. Economic growth slowed to a five-quarter low of 6.6% in October-December 2018. The government's growth estimate for FY19 has been revised downwards, to a five-year low of 7% (earlier forecast: 7.2%). In the February statement, the MPC's guidance was for 7.4% in FY19, and it pegged growth in FY20 at the same level.

The inflation trajectory over the next one year offers sufficient flexibility for limited easing to support growth

Domestic activity indicators offer a mixed-to-deteriorating picture with a convincing upturn in private investment still elusive and the support hitherto from consumption receding. Rural demand dynamics continue to be subdued. The upbeat signals from India's Purchasing Managers Index should be read with caution as economic growth has decelerated in recent quarters despite the survey's signals of expansion in activity; frankly, the survey results have never been a reliable leading indicator of reported GDP growth or of manufacturing activity.

The bottomline is that the MPC will likely have to revise downwards its growth outlook. The anticipated hit to India's growth from global headwinds is unlikely to be offset by domestic demand, hence the need to stimulate domestic demand via monetary action. Would the anticipated repo rate cut be complemented with a change in stance to "easing" (or "calibrated easing")? I don't think so as it is still premature for the MPC to be convinced that the inflation trajectory offers scope for several rate cuts. It is a mistake to conclude from the current benign inflation dynamics, significantly affected by unsustainably low food inflation (which has started to reverse) and weakening economic activity that India has put the inflation genie back in the bottle, and that the 4%-target will be met consistently over the medium-term.

Still, the inflation trajectory over the next one year offers sufficient flexibility for limited easing to support growth. A neutral monetary stance isn't inconsistent with a 50 bps cut in the repo rate. The magnitude of the rate cut is decided by the assessment of the need, the urgency, and the available room to ease. It is admittedly a more aggressive step, but one that will obviate the need for a pedestrian pace of adjustment when the likely inflation path won't alter meaningfully by the time of the next MPC meeting in June. The change in the monetary stance is dictated by the MPC's confidence about the risks to the outlook and whether they allow for unidirectional and multiple rate adjustments. Frankly, it is hard to expect the MPC to be ready to signal an easing rate cycle when it is facing uncertain normalisation in food inflation and still-high core inflation. Also, it will wait for some colour on this year's monsoon before reviewing the stance.

Unlike February's rate decision, a 25 bps cut this week is likely to be unanimous. However, a 50 bps move, if announced, will likely be a split vote simply because the two members who voted for unchanged rates in February won't be able to offer sufficient justification for favouring a bigger rate cut this time. Liquidity management isn't in the MPC's domain, but RBI has been egregiously slow to respond to the challenge of liquidity tightness. It is finally addressing it more effectively via the new dollar-rupee swap. This, along with the seasonal bias towards favourable liquidity at the beginning of the new fiscal year as government spending picks up—and the dissipating impact of the election-related surge in currency in circulation—should improve the availability of liquidity and hence monetary transmission. While surplus liquidity is inconsistent with a neutral monetary stance, it is unclear why RBI hasn't already reassured investors about ensuring neutral liquidity, in sync with its change in the monetary stance in February. Perhaps, it can learn from its own corrective actions on liquidity management in 2016. After a delay in shifting the gears of monetary policy, the MPC should redeem itself by stepping up with a more aggressive 50 bps cut in the repo rate. The inflation-growth outlook offers a tactical opportunity to do so.

Postscript: Governor Shaktikanta Das deserves full credit for reinstating the uploading of the transcript of the post-policy call with researchers on the RBI website. Das's predecessor had buried it without any explanation, after several years of its useful existence. Unfortunately, for the overwhelming majority of researchers—many are otherwise quick to offer wisdom on transparency and accountability—this was not important enough to prompt them to speak up. Many thanks, Governor Das, for correcting an unnecessary mistake.

OVER THE BARREL

Post-poll priority should be environment

The future projected by reports like BP's may be the only politically feasible option. But it is clearly not a future that we wish for our children and grandchildren. Energy economics needs to be redefined

VIKRAM S MEHTA

Chairman and senior fellow, Brookings India

ENERGY WILL NOT be central to the unfolding electoral campaign. It is not a priority subject for the electorate. But once the new government is sworn in, it should be brought front and square into the policy agenda. This is because its trajectory is fundamentally antithetical to the objective of sustainable development. And because time is of the essence.

Today, every projection of India's energy future draws the same broad brush conclusion. Whether it be multilateral institutions like the IEA, multinationals like Exxon-Mobil, BP or Shell, the erstwhile Planning Commission or now the NITI Aayog, the forecast is that energy demand will move in an upward trajectory; indigenous supplies will fail to keep pace with this increase in demand; energy imports will rise in absolute and relative terms and the environment will face increasing stress. More specifically, coal will dominate, oil and gas will have significance; renewables, whilst on a rising trend, will account for a relatively inconsequential share and air pollution, depleting water tables and extremes of weather conditions will presage ecological collapse.

Take, for example, BP's most recent energy outlook published just a few weeks back. It avers that in 2040, fossil fuels (coal, oil and gas) will account for between 70-75% of India's primary energy consumption, down from approximately 90% today. Of that , Coal will account for 45% (down from the current 55%); oil 20% (down from 30% today) and natural gas at the same levels of today at around 7%. Renewables market share will increase to 15%, up from the current 3-4%. In consequence, India will import 95% of its oil requirements; 60% of its gas requirements and 30% of its coal requirements (despite the fact that it contains the 5th largest deposits of coal in the world). India will meet its Paris commitments to reduce GHG emissions by 35% in 2035 relative to 2005 but given this level of fossil fuel consumption, it will be one of the largest absolute emitters of pollutants in the world. The reasoning underpinning all these reports are well known.

Coal is abundantly available; it is the cheapest of fuels; there are no competitive substitutes for liquids as a fuel for mobility; the costs of transitioning to renewables, whether calculated in terms of sunk costs of stranded thermal power assets or the creation of transmission and distribution infrastructure to overcome the problem of 'intermittency' (the sun does not shine all the time; nor does the wind blow with regularity), are huge and there are technological (i.e, storage, carbon sequestration) and regulatory (conservation norms; emissions standards) issues to overcome before clean energy can be brought to scale. The future projected by these reports may be based on sound logic. It may tick every economic box and it may be the only politically feasible option. But it is clearly not a future that we wish for our children and grandchildren. This logic must be challenged. Energy economics needs to be redefined.

Two decades back, the US was the largest importer of liquid fuels in the world. Global geopolitics pivoted around this reality. Policies were contrived to reduce this dependence but no one imagined that the US would ever secure self sufficiency. Today, the US is the largest producer of liquids in the world. More extraordinary, it is now placing approximately 200,000 barrels a day of oil into the global market. This energy revolution happened because an independent entrepreneur in Texas refused to accept the straitjacket of convention. Rather than apply the technologies of hydraulic fracturing (of the rock faces) and horizontal drilling separately as was the then norm, he asked the counterfactual. What if these technologies were applied conjointly? He 'fractured' the rock faces by a blast of high pressure liquids and used the design of the horizontal wells to bring the released molecules of oil and gas to the surface, cost-effectively. His success triggered the 'shale revolution' and fundamentally altered the commercial, strategic and geopolitical landscape of the global petroleum industry.

We have to contemplate just such a 'revolutionary' change. We have to ask the counterfactual and contemplate the counter-intuitive. "What institutional , economic, technological, financial and collaborative steps must be taken to flip the ratios between fossils and renewables in the energy basket of emergent India"? There will be no clear answer but the mental and physical processes triggered by such questions will enhance the chance of finding a pathway off the currently trodden path of fossil fuels. A few early steps must be taken by the new government to start this process.

Firstly, it must replace the lens that is currently used to look at the energy sector. This lens provides a disaggregated picture and encourages a siloed approach to energy governance. It does not facilitate a holistic overview of the linkages between the different components of energy (oil, gas, coal, renewables, nuclear, hydro, bio, non-commercial); nor between fuel usage, electricity, mobility, industry, agriculture on the one hand and ecology on the other. A "general equilibrium" macro model is required that captures such linkages and enables decision makers to consider the systemic implications of changes in one or more of these variables.

The second is a corollary of the first, and we have to create the appropriate institutional structures of decision-making. The current structure of multiple energy ministries (petroleum, coal, renewables, power, atomic) should be collapsed into one omnibus ministry of energy and environment. This will enable integrated decision-making; it will provide a platform for collaborative public-private, constructively disruptive innovation and it will bring sustainability to the fore of policy. Finally, the government should use its newly derived mandate to legislate an "Energy and Environment Security" Act. The purpose should be to engage the public in the larger debate on how to weaken if not break the current unhealthy nexus between economic growth, energy demand and environmental degradation. It should be to elevate the objective of wreaking an energy "discontinuity" into a national priority.

LETTERS TO THE EDITOR

Congress's manifesto

The contents of the Congress's election manifesto have the potential to appeal to the voters. The promise to change defaults in loan payments from a criminal offence to a civil offence will win farmers' support. The promise of quality healthcare for the poor will go down well with people living at or below the poverty line. The promise to allocate 6% of GDP for education, another big-ticket announcement, will be investment in unlocking the country's immense economic potential and, when implemented, will be truly revolutionary. A leaner GST of two slabs will please the traders and customers alike. The promise to scrap the archaic and draconian sedition law—a colonial relic—portends well for the cause of freedom. On Kashmir, the party's position that it is for the retention of Article 370, the reduction of troops, the review of the AFSPA, and talks with all stakeholders without preconditions is sensible and needed to redeem the situation in the Valley
— G David Milton, Maruthancode

Non-political Governors

The Election Commission complained against Rajasthan Governor Kalyansingh for his political statement wherein he advocated the present PM to continue even after the forthcoming Lok Sabha polls. It is quite usual that political persons appointed as state Governors give such political statements, as has been done by present Madhya Pradesh Governor in April 2018. It is not proper to misuse the dignified post of state Governor for political waste. There have been many cases earlier where politicians, appointed as state Governors, have misused Raj-Bhawans (Governor Houses) like party headquarters dancing to the tunes of political masters at the centre
— Subhash Agrawal, Delhi

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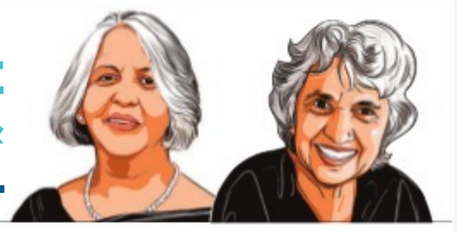
● CITIES AT CROSSROADS

The collective challenge of managing solid waste

ISHER JUDGE AHLUWALIA & ALMITRA PATEL



Ahluwalia is Chairperson, ICRIER, Delhi, and former Chairperson of the High-Powered Expert Committee on Urban Infrastructure and Services. Patel is Member, Supreme Court Committee on Solid Waste Management

Metropolitan cities across India can learn from Vellore, and 19 other cities in Tamil Nadu, where no waste goes to a dumpsite, and where the collective efforts of the authorities and the community have ensured overall reduction in the volume of total solid waste

ILLUSTRATION: ROHNIT PHORE

WE WROTE IN OUR PREVIOUS column about how small towns in India are showing the way in keeping wet waste separate from dry waste ('Small towns drive big change', *FE*, February 27; *https://bit.ly/2WD0jCx*). This is the most critical first step for sound solid waste management. We also looked to see if some bigger towns are getting their act together in managing their solid waste. Admittedly, it is more difficult to organise community action in large towns. But wards are a good place to start. We are happy to report some encouraging news from Tamil Nadu.

The city of Vellore in Tamil Nadu, with population of 5 lakh, has been a trailblazer in decentralised management of solid waste and sending no waste to landfill. More recently, it has earned the remarkable distinction of getting all its residents to separate their wet waste from dry waste, which makes the task of solid waste management so much easier for the Municipal Corporation. But we are getting ahead of our story.

Vellore generates 160 tonnes of solid waste per day, excluding waste from bulk generators. It all began with a PIL in the National Green Tribunal in 2015 seeking closure of the 8-acre dumpsite on a tank bund in Saduperi, a few kilometres away from Vellore. The site had been used for dumping mixed waste since 1991.

The Vellore Municipal Corporation (VMC) responded to the challenge by building 42 sheds for micro composting centres (MCCs) across its 60 wards. Each MCC (with capacity ranging from 1.5 tonnes to 5 tonnes) was provided enclosed sheds containing numerous open-brickwork tanks (5 feet deep, 5-6 feet wide and 7-10 feet long) for composting wet waste. The tanks are filled in rotation, over a starter bed of dry leaves, with one-foot layers of hand-sorted wet waste plus a layer of cow dung slurry as compost starter, and allowed to mature for 30-60 days.

Last month, one of us led a group of 10 others and drove from Bangalore to Vellore to see for ourselves how the VMC is implementing its decentralised waste management system. At an MCC, we were pleased to see fully segregated wet waste being hand-picked to remove coconut shells and other hard-to-compost items, on the one hand, and clean dry waste carefully sorted into different bins for sale, on the other.

The municipal commissioner at that time, Janaki Raveendran, with support from all elected local representatives, proactively and completely, stopped sending any waste to the dumpsite. They started doorstep collection of mixed waste in Vellore using primary collection vehicles and municipal workers to transport the waste to MCCs. These are run by self-help groups who are provided with covered space for sorting, and are paid ₹250 per day. They can collectively keep the sale proceeds of both compost and dry waste. The VMC pays for electricity and water. There is no secondary transport, no transfer stations for the garbage, and no black spots in the city, not to speak of the significant savings on transport cost.

The second major step of 100% segregation came with the enthusiastic efforts of S Sivasubramanian, who assumed charge as the municipal commissioner of the VMC on October 31, 2018. Having inherited a well-functioning system of decentralised waste management, the new commissioner was determined to achieve doorstep collection of waste, fully segregated at source, as he had done during his earlier posting in Tirunelveli. This has been achieved in Vellore in just four months. This should give thought to the many who believe it can't be done in India—it is being done admittedly in the South, but there is no reason why the North cannot follow suit.

The awareness campaign involved the municipal commissioner of Vellore and other high officials using social media by posting photos of themselves in their home kitchens with separate bins for wet and dry waste. All municipal staff and waste workers down to the lowest level and all government employees were urged to keep their home wastes unmixed, before asking others to do so. Religious leaders of different communities were also approached and urged to convey to their followers the importance of keeping wet and dry wastes unmixed, and from January 2019 avoiding the use of one-time-use plastics that have been banned by the Tamil Nadu government. Groups like Lions and Rotary were roped in to spread the good word. Schools were required to get pledges signed by all the students and their parents. With the cooperation of teachers, they have reached out to 1,28,000 homes.

Such campaigns to engage with the community are successful only when the doorstep collection teams cooperate and strictly refuse taking mixed waste. After accepting the segregated waste, they should visibly transport the wet and dry waste separately to gain trust of those who have complied by not mixing the wastes at source. The pending grievances of waste collectors with respect to promotions, filling vacancies, provident fund issues and minor repairs of primary collection vehicles, etc, were resolved to ensure their buy-in for the campaign. This shows leadership in making change happen.

Micro-planning of collection vehicle routes manned by municipal staff, and tracking their punctuality and performance is also key to citizen cooperation. The benefit of this intensive burst of focus is that once success is achieved, it is relatively easy to maintain the system. Prolonged deadlines for compliance, one area at a time, do not work.

At a morning muster, sanitary officers give each waste collector a notebook containing a message from the municipal commissioner, which they have to show to each household on their beat and collect a signed pledge to not mix their wastes and not use banned plastics. This is to promote bonding with the households. After two warnings, mixed waste is temporarily accepted on payment of a fee of ₹10. Thereafter, mixed waste pick-up is strictly refused, with full backing of the superior officers of the doorstep collectors. A follow-up visit is made the same evening to the defaulter household to find out where their uncollected waste went.

Admittedly, it is more difficult to organise community action in large towns. But wards are a good place to start—the Vellore model can work equally well in every ward of a metropolitan city

The government of Tamil Nadu has provided an enabling environment through proactive engagement of the Department of Municipal Administration. The courts have also provided strong support for decentralised waste management. Under the leadership of G Prakash, the commissioner of Municipal Administration in Tamil Nadu, 700-plus MCCs and several on-site composting centres have come up, all receiving well segregated waste. As in Vellore, so in 19 other cities, no waste goes to a dumpsite. State-wide, wet waste is collected six days a week and dry waste only on Wednesdays. Municipalities have framed by-laws to comply with the Solid Waste Management Rules, 2016. Thus, user charges starting from ₹20 per month are added every six months to property tax, with collection rates of 80-100%. Bulk generators managing their own waste are charged for collection of dry waste and for the waste they indirectly generate at local markets, eateries, etc. As a result of the plastic ban, the volume of total solid waste has come down from 160 tonnes to 131 tonnes a day.

This model can work equally well in every ward of a metro city. The collective challenge of managing solid waste in our metros requires, above all, the engagement of the community.

● METRO RAIL

Make in India, for the world

CHIDAMBARAN G IYER

The author is senior fellow, Pahle India Foundation

An ecosystem to manufacture rolling stock has been successfully established

ECONOMIC LITERATURE HAS IDENTIFIED urban centres as engines of economic growth. As an urban centre grows, so does the demand to move people and goods; in other words, economic growth increases the demand for urban mobility. India's process of urbanisation is taking place at a time when the global community is moving towards green technology and reducing carbon emissions. We not only have to provide modern mobility options to our urban population, but also manage the technology transition to these green technologies. In the past couple of decades, the policy focus for mass intra-urban mobility that has helped India in its initiatives to reduce carbon emissions has been the construction and operation of metro railway systems. This form of mobility has been so popular among central and state governments that, as of February 2019, as many as 14 urban centres in the country were in various phases of metro rail construction and operation.

Metro rail projects have huge investment outlay, which, when directed properly, can maximise the multiplier effect on economic activities. The world over, metro rail projects have been used to provide a fillip to the local industry. Given the impetus to 'Make in India', the government has the opportunity to use these projects to push manufacturing activities in the country. In this context, the recent mandatory tender conditions and standardised norms issued by the ministry of urban development are timely. Modern metro rail has a mix of both complex and advanced technology, hence, expectedly, most of the leading firms are multinational companies.

A metro rail project has numerous subsystems, one of which is rolling stock or rail coach. In our recent study, we looked at the effect of foreign investments in the metro rail rolling stock segment. Two foreign firms had set up plants to manufacture rolling stock in the country, while a third firm was in the process of setting up one. It is well-known that, in the past few decades, commodity composition of exports from India underwent consistent changes in favour of capital and skill-intensive products. Foreign firms in the metro rail segment have used this comparative advantage to export rolling stock from India. Foreign firms in India have also exported semi-finished units, thus providing an opportunity to get into their global value chains. At the same time, there has been local capacity-building; as a local firm, after a successful technical collaboration with another foreign firm, has independently won a contract to supply rolling coaches to phase 2 of Mumbai Metro. In other words, an ecosystem to manufacture rolling stock has been successfully established in the country.

Metro rail projects have huge investment outlay, which, when directed properly, can maximise the multiplier effect on economic activities

However, it has been recently reported that the global rolling stock industry is facing large overcapacity issues, leading to consolidation pressure. Key growth areas will be in urban transport, and that too in emerging markets. Given this situation and the slew of metro projects in India, many global firms are lining up to serve the Indian market. This can be seen from the fact that, for the recent expression of interest for providing rolling stock on lease basis for Line 5 of Delhi Metro Rail Corporation on December 12, 2017, as many as 11 applicants qualified for issue of request for proposal documents. Thus, there is huge interest in the Indian market.

Metro rail projects are typically funded by the government, domestic and foreign funding agencies, and public-private partnership. Among these three options of funding, we have generally opted for a combination of the first two. Most of the metro rail projects in the country have been co-financed by foreign funding agencies. The various ways of funding a project have implications on the amount of manufacturing in the country; as, recently, in one of the metro projects, for two lines, the foreign funding agency set a precondition that in all the systems for these two lines, technology of a particular nationality should be used. Given the complexity of these systems, this condition excludes most of the players from participating in the tendering process, which affects local manufacturing investments. The need of the hour is coordination between central and state governments to ensure that the funding agency that comes on-board gives a fair chance to all manufacturing companies. This will support the developing ecosystem as well as investments that have gone into the metro rail segment in the country.

MISSION SHAKTI

Genius of Indian space scientists

Did Modi help Indians reimagine India's military, commercial and geopolitical power?

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PRIME MINISTER Narendra Modi's political genius was on full display last week when, in a short TV address, he declared India's emergence as the fourth nation to enter the elite space power club—along with the US, Russia and China—to have proved capabilities to destroy targets in space. Describing the details of Mission Shakti—it lasted for three minutes, shooting down a satellite in low Earth orbit with a missile, 186 miles from Earth—Modi's address surreptitiously drove home the three messages of *suraksha* (military acumen), *vikas* (development) and a reminder to the nation that the entire effort had been indigenous (Make in India). These are the three political mantras synonymous with BJP's election messaging and crucial for its electoral success.

Modi detractors complained to the Election Commission that the address was a violation of the model code of conduct that prohibits incumbent governments from making policy announcements weeks before a general election. Herein lies the genius of Modi's political messaging. In his almost 10-minute address, Modi did not mention Pakistan, the Indian economy, the BJP, his name or his government even once. And yet his sheer announcement, and the media coverage that followed, not only drove nationalist fervour, but also attempted to reinforce the belief among the electorate that the security and the economic development of the nation is safe in the hands of the Modi government. Unlike in the case of Balakot air strikes, Modi's detractors did not ask for proof given that the technological achievement of Mission Shakti was officially confirmed by the Pentagon of the US.

But we should pause before trivialising the achievements of Indian space scientists—amidst the political bickering that followed the announcement, including comments from former staff of India's defence and space research organisations that prior non-BJP governments lacked the political will to fund an anti-satellite (ASAT) system programme—and understand what Mission Shakti stands for.

Modi's message underlined the fact that India's space power stands for peace and not as a threat to other military powers. As the only non-permanent member of the UN Security Council to be a space power, this commitment comes with important geopolitical implications.

A January 2019 US Defense Intelligence Agency (DIA) report '*Challenges to Security in Space*' highlights how Chinese and Russian governments reorganised their space military capabilities in 2015, developing jamming and cyberspace capabilities, directed energy weapons, on-orbit capabilities, and ground-based ASAT missiles as a means to reduce US and allied military effectiveness. The Vice-President of the US, Mike Pence, in a *Washington Post* op-ed referencing DIA report, lamented the US military unpreparedness in space and wrote that "while our enemies have weaponized space, we have bureaucratized it." India's non-aligned status in the space war race provides it with unique opportunities to leverage its military closeness to both the US and Russia, thereby benefiting from research and strategic collaboration. The *New York Times*, in a March 27 report, recognises India's space achievements as a "shifting balance of power in Asia." An Asian Switzerland to a militarised space. In the terrorised geography of South Asia, this message should be music to ears of Indian citizens and the US President.

Modi's message should help Indians think of space beyond the work of the ISRO or the launch of inquisitive space probes. As Modi pointed out, our lifestyle is more dependent on space than ever. From getting directions on our handheld devices and hailing a cab, to locating a restaurant, a lot is enabled by the Indian Regional Navigation Satellite System (IRNSS), or NAVIC, operated by the ISRO. Mission Shakti will augment NAVIC's ability to leverage Indian space power, giving our armed forces and intelligence community a strategic advantage, increasing the agility, precision and lethality of our military with lesser collateral damage. It is not surprising Mission Shakti prompted Pakistan to urge the world to slam India, while China found itself to be a 'for-peace' evangelical.

Leadership in space will also help India develop indigenous technologies to revolutionise how we communicate, travel, farm, trade and educate, creating countless jobs. Modi did not forget to remind his electorate how the benefits of India's constellation of satellites are being enjoyed by farmers, students, fishers, military forces, and why it is a moment of national pride—now that we have an ASAT system.

But India is still not there. To harness the full military and commercial benefits of Mission Shakti, India needs to formally develop a 'space force' plan. Which government departments should bear the responsibility to develop, coordinate and implement India's national-security space programme? There must be a mechanism of strategically syncing the needs of India's defence and finance ministries with the aims and outputs of ISRO's research.

Can we take a cue from US President Donald Trump's efforts to develop a dedicated US Space Force? In February, Trump signed the Space Policy Directive-4, ordering the Pentagon to create 'Space Force' as a new branch of US military, and earlier this month US defense secretary started the process of establishing a US Space Force that will centralise the US command-and-control structure for space war fighting, besides developing and implementing strategy, doctrine, tactics, techniques and procedures for US armed forces to deter and defeat a generation of military threats in space. Both Russia and China has revamped their military bureaucracy to provide for such space prowess.

A leader inspires others to imagine beyond the capabilities of their immediate constituencies. Did Modi help Indians reimagine India's military, commercial and geopolitical power in an increasingly confrontational domain of space? Only time will tell.