Opinion

FRIDAY, AUGUST 30, 2019

MONEY MONSTER

Chief Minister of West Bengal, Mamata Banerjee

The central government is either threatening opposition leaders or buying them out with money. It is after Bengal now, as we are opposing its policies and divisive politics. But Bengal is not so cheap

Now to deliver on FDI in commercial-coal-mining

Local firms can already commercially mine coal but did not get any mines; vital to see this doesn't happen to FDI

GIVEN HOW, IN 2000 itself, the NDA had brought in a Bill to amend the coal nationalisation law to allow commercial mining, it was always a surprise that, even when the NDA came to power for the second time in 2014, it didn't push for this. Indeed, even after the BJP announced a new policy on mines—after the Supreme Court cancelling coal mining licences forced it to come out with a new plan—it changed the law to allow for this, but it never took the necessary steps to ensure commercial mining of coal; while it auctioned several coal blocks, none of this was for commercial mining. Last year, *The Indian Express* reported on a note prepared by the coal ministry which said that since the unions of Coal India and its subsidiaries were against commercial mining, this "does not make it conducive at present for the auction of coal mines for the sale of coal". In which case, while the government decision to allow 100% FDI in commercial mining—under the automatic route—has to be welcomed, it has to be seen whether the government is able to implement it; after all, if local firms have not been able to commercially mine coal despite being allowed to, it is not going to be easy for foreigners to be able to do this.

Allowing commercial mining of coal is critical since, with India importing over $26bn of coal, it is crucial to find ways to boost coal output; indeed, since imported coal costs a lot more, many users, like power plants, don't even import coal as this prices them out of the market. The sharp increase in Australia's reserves as compared to India's is the best example of why India needs to get global firms of repute to explore for minerals; mineral imports comprise 55% of India's overall import bill, and it is a high 25% even when oil is excluded. Interestingly, while PSUs have been given some of India's best reserves, as a general rule, private firms have been a lot more successful, whether you compare Cairn with ONGC, Tata Steel or JSW with SAIL, NMDC with Sesa Goa, etc. A Niti Aayog strategy paper had pointed out that while India's prospective geology is very similar to that of Western Australia, only 10% of it has been explored, as compared to 95% for Australia, and an even smaller 1.5% is being mined right now; according to Niti, even doubling the area being explored could create an additional 5 million jobs by 2022-23.

Apart from ensuring that enough mines—and of reasonable sizes—are put on auction for commercial mining, the government needs to reduce India's levies; as compared to 7-15% in Australia and 0.5-4% in China, India's royalty rates are 30-35% (the value of the cess varies according to the quality of coal), and corporate tax rates are also much higher. There is, then, the issue of forest and environmental clearances. Australian mining giant Rio Tinto found a lot more diamond-bearing formations in Madhya Pradesh in just a few years than PSUs had over decades, but had to finally leave when it wasn't allowed to mine as the area was part of a tiger reserve. And, Vedanta's sad history in Niyamgiri is well documented. So, while the government did well to allow 100% FDI in commercial coal mining as part of its measures to stimulate investment, delivering on this is going to be far tougher.

Media's Bombay Club

Not clear why FDI levels are restricted in the media space

ON THE FACE of things, the government has done well to permit up to 26% FDI for digital media in the 'news & current affairs' space, as the official press release says, 'on the lines of print media'. But, the question really is, why have any caps and why make this subject to government approval? The reason, never stated upfront, is probably that the government—the current one and all previous ones—believes that foreigners can't be trusted to give unbiased news/views and so, it is best to restrict their spread. That's also the reason why, when FDI was allowed in print media, restrictions were put to ensure all top positions, like that of the editor, were held by Indian citizens; over the years, a few editors have been asked to leave as they were not Indian citizens.

But, even if you buy this argument, and also believe readers/viewers are too stupid to figure this out, all foreign TV channels can be viewed in India and all foreign newspapers can be bought here, and, thanks to online media, be read for next-to-nothing or even free. So, if 100% FDI is allowed in the real sense, why not legalise it? And, if foreign ownership needs to be restricted because it is bad, why are 49% levels allowed in TV news which, most would agree, has a greater reach/penetration than newspapers? Also, in these days of convergence, what is print, digital or television? Is a newspaper with an online presence to be viewed as digital, and what of a digital platform that provides news/views in both text and video—is this digital or television? Depending on what view the government takes, the entity can get more FDI or may have to reduce it. Are the likes of Google to be considered newspapers or aggregators; if they are the former, does the India operation need to find a 74% local partner? It is not just Google, several entities that provide news/views in text/video form have 100% FDI today; will they have to lower this now? Nor is it clear why the government has made a distinction between up-linking and uploading/streaming when it comes to FDI limits. It is obviously true that TV channels do 'uplinking' while websites do uploading/streaming, but if the end result is subscribers getting to watch content instantaneously or near-instantaneously, aren't they the same thing?

While the media has been at the forefront of the clamour to open up the economy and liberalise it by lowering import duties and allowing more FDI, unfortunately, the more influential news organisations have never been in favour of this in the media space. After all, if smaller newspapers got FDI and used this to expand their growth, it would hit the larger players, which may not provide news/views of the same standard. Some established editors, anxious to protect their jobs, then convinced the government to ensure only Indians could become editors; imagine the furore if a rule said no CEO of a hotel or an airline operating in India could be a foreigner! Such Bombay Club-type restrictions have no place in a modern India.

HicHicHURRAY?

Delhi excise department puts out a bizarre policy to counter adulteration of liquor at bar counters

CALL IT A case of cutting off the nose to spite the face. The Delhi department of excise, entertainment & luxury tax, in a bizarre order, wants bar counters, whether at hotels/restaurants or bars attached to liquor shops, to dispose of the alcohol lying on their shelves un-exhausted or un-served within 3-8 days, depending on the type and price of the drink. The excise department believes that this would help solve the problem of adulteration/re-filling that can happen when bar counters don't follow the "first in, first out" principle, and older, half-empty bottles are used for selling duplicate liquor under premium branding. However, the excise department has failed to see the extremely arbitrary nature of its order. For instance, if, as per the order, the bar counter must sell beer/wine bottles or their content within three days of the bottle hitting the shelf, or be forced to destroy it within seven days of the expiry of the 'bar-life', then there can be two possible scenarios. Either the restaurants/hotels or bars buy lesser of these, hitting both their margins and consumers, or limit offering to only those brands that see a high rate of sales, hitting consumer choice and diversity at the producer end. Alternatively, they must announce ludicrously attractive schemes to finish off the bottles, in which case, the order will mean nothing short of encouraging copious alcohol consumption. Apart from the law & order issues this could, potentially, create, the ramifications for public health are considerable.

The order states that IMFL and foreign liquor, whose MRP is up to ₹1,500, will be deemed to have been consumed within five days of receipt from the liquor store, and IMFL and foreign liquor priced between ₹1,500 and ₹6,000 will have a 'bar-life' of eight days. Curiously, IMFL/FL priced above ₹6,000 have been exempted. The business losses and the potential health/law & order ramifications may perhaps help the excise department sober up. Else, expect a boom for the rehab business or for bootleggers.

TAX REFORM

THE EXCLUSION OF CAT III AIFs FROM THE ROLLBACK OF SURCHARGE ON FPIs LEAVES INDIAN FUNDS AT A FUNDAMENTAL DISADVANTAGE IN INDIA COMPARED WITH FPIs

Need to relook anti-Indian tax laws

TV MOHANDAS PAI & SIDDARTH M PAI

Mohandas Pai is Chairman, Aarin Capital & Siddarth Pai is Founding partner, 3one4 Capital

Views are personal

WE LIVE IN an age of protectionism, where local industries are being protected against global players. The glut of globalisation from the 1990s faces a resurgent spirit of nationalism; policies that previously promoted free trade are being met with protective measures, such as tariffs and trade barriers. The US, the bastion of free trade and capitalism, has started a brutal trade war with China, and has gone so far as to create checks on foreign acquisitions of US companies via the Committee on Foreign Investment in the United States—all to promote local industries under the "America First" policy.

In this protectionist era, instead of giving Indian investors an advantage for investing in India, our tax laws have handicapped Indian investors in their own country!

The 2019 Budget saw the introduction of a 37% surcharge on incomes above ₹5 crore earned in India; the fine print saw this surcharge being applied to trusts as well as individuals. Many foreign and domestic institutional investors are incorporated as trusts since it gives them the greatest flexibility to manage their investments. This surprise surcharge caused panic in the markets and blood on the street. July witnessed a haemorrhage of over ₹14 lakh crore in market value, with FPIs pulling out over ₹22,000 crores. The finance minister took cognisance of this after the consequences became too much to bear, and vowed to introduce mitigative measures. Last Friday, she announced a series of measures to bring relief to the market and the economy. The chief amongst these measures was a rollback of the higher surcharges for FPIs.

While the foreign investors were celebrating this, Indian investors were left aghast at being left in the lurch and being subject to the same surcharge from which their foreign counterparts were exempt. But, this discrimination is nothing new—Indian investors have consistently been treated as subordinate to foreign investors, beginning from how our laws are drafted.

For investors in Indian markets, there always existed an ambiguity in taxation regarding whether the gains they make are capital gains—having a more favourable tax regime—or should be considered as business income. There are innumerable cases on this subject involving inspections of the business model, different demat accounts, investor intention, etc, yielding a lot of ambiguity. In 2014, then-FM Shri Arun Jaitley spoke about the "uncertainty in taxation on account of characterisation of income" faced by FPIs, causing him to amend the definition of a "capital asset" to include any securities held by an FPI—ending this debate for FPIs.

Yet, Indian investors didn't receive the same courtesy on the issue.

In all fairness, in February 2016, the CBDT did issue a circular stating that it will accept the stance of investors on the issue of whether securities are stock-in-trade or capital assets if they're held for longer than 12 months. But, in terms of assets held for less than 12 months, the ambiguity for Indian investors continues whereas their foreign counterparts stand relieved.

This issue is especially acute in Category III AIFs, who will be the worst hit by the increased surcharge. Out of the three categories of Alternative Investment Funds in India, Category III AIFs are those "which employ diverse or complex trading strategies", investing into listed or unlisted securities. But, they lack the pass-through structure afforded to other AIFs in India and suffer taxation at the maximum marginal rate. Worse off, due to our tax codes, if they choose to employ derivatives in the form of futures and options, their income will be taxed at the maximum marginal rate as business income, which is now 42.7%. The FPIs, who do the same, do not suffer from this rate since they're exempt from the surcharge, and their derivatives are capital assets.

The lack of pass-through status for CAT III AIFs flies in the face of logic when the other two categories are afforded this. These funds are all pooling vehicles—an accumulation of funds from various investors for common investments under common management. The just form of taxation is to ascribe tax rates to the individual investor on the income generated by the fund. Taxing income at the maximum marginal rate due to the common vehicle is absurd. To put things in perspective, this is akin to taxing the savings bank interest of a person with a net income of ₹10 lakhs and a person with a net income of ₹10 crore at the same rate just because they both use the same bank! The law cannot turn a blind eye to the end beneficiary, and assume that all investors belong to the highest tax slab, regardless of their actual income. To each his own rate.

> How can India become an investment destination when its laws are categorically loaded against its domestic funds?

For all fund managers, this begs the question of whether the choice, for a given strategy and structure, should be to create an Indian vehicle—which suffers from the deficiencies of higher taxes, ambiguity over the classification of gains, and characterisation of derivative gains as business income—or float a foreign fund, register as an FPI, and rid oneself of these issues? *Ceterus paribus*, if a change in geography yields such benefits, why would anyone create an Indian fund to invest in India?

This is one of the reasons why foreign investors are reluctant to invest in Indian investment vehicles. India's CAT III AIFs (including hedge funds) have a corpus of only ₹40,000 crore ($5.52 billion). To put things in perspective, the largest hedge fund in the world has assets under management of $6.3 trillion and the 10th largest has over $34.3 billion. How can India become an investment destination when its laws are categorically loaded against its domestic funds? This discrimination is especially puzzling to foreign investors, who are looking to back Indian fund managers in India; instead, they're found in either Mauritius or Singapore.

Even in the unlisted space, discrimination exists in the form of 'Angel Tax' or Section 56(2)(vii) (b)—which taxes the premium of Indian investments into private companies as income if such premia exceed the fair market value. It is pertinent to note that this applies only to Indian investors, and not to money received from foreign investors. This is one of the reasons why rupee participation in the Indian startup story is under 10% of the total capital raised by them.

It must be noted that the reports being circulated that Smt. Nirmala Sitharaman created this disparity in taxation are thoroughly untrue. Such disparity has existed for a long time. It is a tragedy that Indian investors are discriminated against in this manner in their own country. In spite of this discrimination, since the budget speech in 2019, domestic investors have been net buyers to the tune of ₹38,000 crore while foreign investors were net sellers. Domestic participation in the market has been higher than ever before, and the government should recognise this. We need our elected representatives to correct this discrimination in our laws. We need prime minister Modi to unleash the animal spirits of the Indian investor by ending this discrimination. Allow for securities held by CAT III AIFs to be classified as "capital assets" and extend the same benefit to them as was extended to FPIs. Did we gain independence from the British only to still be discriminated against in our own country?

Indian fund managers look forward to the day when the gateway to Indian equities is Mumbai—not Mauritius.

A confession of human harm

Naming the current epoch Anthropocene after humans is not an act of arrogance, but a testament to the mess we will leave behind

FAYE FLAM

Bloomberg

SOME SCIENTISTS ARE trying to name our current geologic epoch after us—calling it the Anthropocene. That's no brag, because most of the changes we're making to our planet are embarrassing.

We've caused huge shifts in the plants and animals sharing the planet with us, driven many species to extinction, left a layer of radioactive fallout from exploding nuclear bombs, accidentally changed the composition of our atmosphere, and left a layer of plastic that will, in all likelihood, still be around in a million years.

Long after time and erosion have turned all our feats of art and engineering to dust, our mess will remain. Naming this era after ourselves is more of a confession. That acknowledgement is a first step toward strategies for minimising our damaging influence.

A fascinating feature in Nature this month describes the search for what scientists call a golden spike—a marker somewhere on the planet displaying a clear, sharp signature of significant change that would mark the dawn of the Anthropocene. What makes the process interesting isn't what they settle on as a starting point, but what it is revealing about the way humans have become an earth-changing force, and how long human-wrought changes will persist. With that understanding could come strategies for minimising our damaging influence.

These scientists are coming to favor atomic bomb blasts of the 1950s, which are leaving a long-lasting layer of isotopes in lake beds and deposits of ice. People have also considered the advent of widespread chicken farming, which leaves behind the bones of almost 60 billion birds each year.

There is a subjectivity to this process, said planetary scientist David Grinspoon, whose book "Earth in Human Hands" makes a case for the Anthropocene. A person exploring Earth 50 million years from now may not find any obvious signs that we were here, he said, but if they were trained archaeologists and did some digging, they would see that something extraordinary happened.

Naysayers argue that we don't warrant our own geologic era because we are too short-lived a species. We've only been around 200,000 years, and for most of this time we did nothing to cause lasting change. It wasn't until 50,000 years ago that people started to spread around the globe, leaving in our wake a wave of extinctions of the animals we liked to eat. And it was only in the last century—insignificant in geologic time—that we've really started adding new materials, such as plastics, to the geologic strata. Geologic time is long, and our existence short, at least so far.

But, we can already know that our influence on the planet will last into geologic time. The nuclear remnants of our bomb blasts will last for hundreds of thousands of years, and so will traces of those mountains of plastic we've been throwing away, some of which is already forming a new kind of stone, dubbed plastiglomerate. Scientists estimate that human-generated changes in the chemistry and temperature of our oceans will persist for thousands of years after we learn how to stop burning fossil fuel.

In Greenland's ice cap, layers dating back to the Roman era show contamination with industrial lead. Leaded gasoline from the 20th century will leave an even bigger layer that also includes cadmium, arsenic and chemical changes that took place when the ozone layer sprung a hole. (While the edges of the ice are melting fast, the cap itself, and buried traces of our pollution, could last another million years.)

Even more profound will be the change in the fossil record of life. The United Nations recently estimated that, globally, human activity is likely to cause a million species to go extinct. We don't really know how many species exist now; biologists have catalogued about two million but estimate a total of around 10 million.

Another recent study showed that we've already radically changed the populations of living things—destroying 83% of all wild animals and half of wild plants. Currently, researchers estimate, 96% of mammals today are humans or livestock, and only 4% are wild animals.

To make the Anthropocene official, a committee called the Anthropocene Working Group will need to agree on a golden spike and create a proposal, which would eventually come up for approval from the International Union of Geological Sciences. But even without official sanction, the idea is catching on in the popular imagination.

Back in the 20th century, when I wrote about the predictions that greenhouse gases were warming the globe, people accused me of being arrogant for even thinking human beings could affect this vast planet. But the earth is not, as long believed, too vast to be changed by humans, and with a population of seven billion and climbing, we are not too small to leave an indelible mark.

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LETTERS TO THE EDITOR

No Parliament, that's for halloween

The regime is expected to set in motion the suspension of the UK Parliament—thus, implying that members would have much less time to debate Brexit, as an unduly longer recess than usual, right before the deadline, is being criticised. The move threatens to have severe repercussions on the economy, as risks of an uncontrolled-inflation and limited market-access, cannot be ruled out. A vote of no-confidence in the government and proposal of a general election. The lop-sided cabinet-structure, in the name of sovereign-unity, has been over-dominated by 'Brexiteers', as select senior/experienced members in key-roles were fired without rhyme or reason. The political instability has only aggravated, as multiple push-backs and attempts to build consensus on a viable deal, failed to deliver the desired outcome, on every occasion. Uncertainty within the EU council and rising levels of public-anxiety, prevail - despite the change of guard. Entities were expected to implement a favourable-deal in a cohesive, timely and professional manner, to fulfil the key objective, known for over three years now. Instead of closing the chapter for good and concentrating on larger socio-economic issues to prioritise public-welfare. Institutional investors and market-participants are reluctant to explore new avenues, as valuations are on the decline and the real-estate market is in a phase of price-correction. Besides an ordinary track-record of the incumbent government, it is the absence of crystal-clear exit-terms and prevailing geo-political turbulence—which is more than likely to further affect the business-environment and investor-confidence.

— Girish Lalwani, Delhi

●Write to us at feletters@expressindia.com

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The growth economics of artificial intelligence

As India is moving on the trajectory of digital transformation, the growing penetration of digital technologies in the lives of Indians and the generation of huge volumes of data at every interaction point projects a germane use-case for an AI-driven economy

OMKAR RAI

The author is director general, Software Technology Parks of India. Views are personal

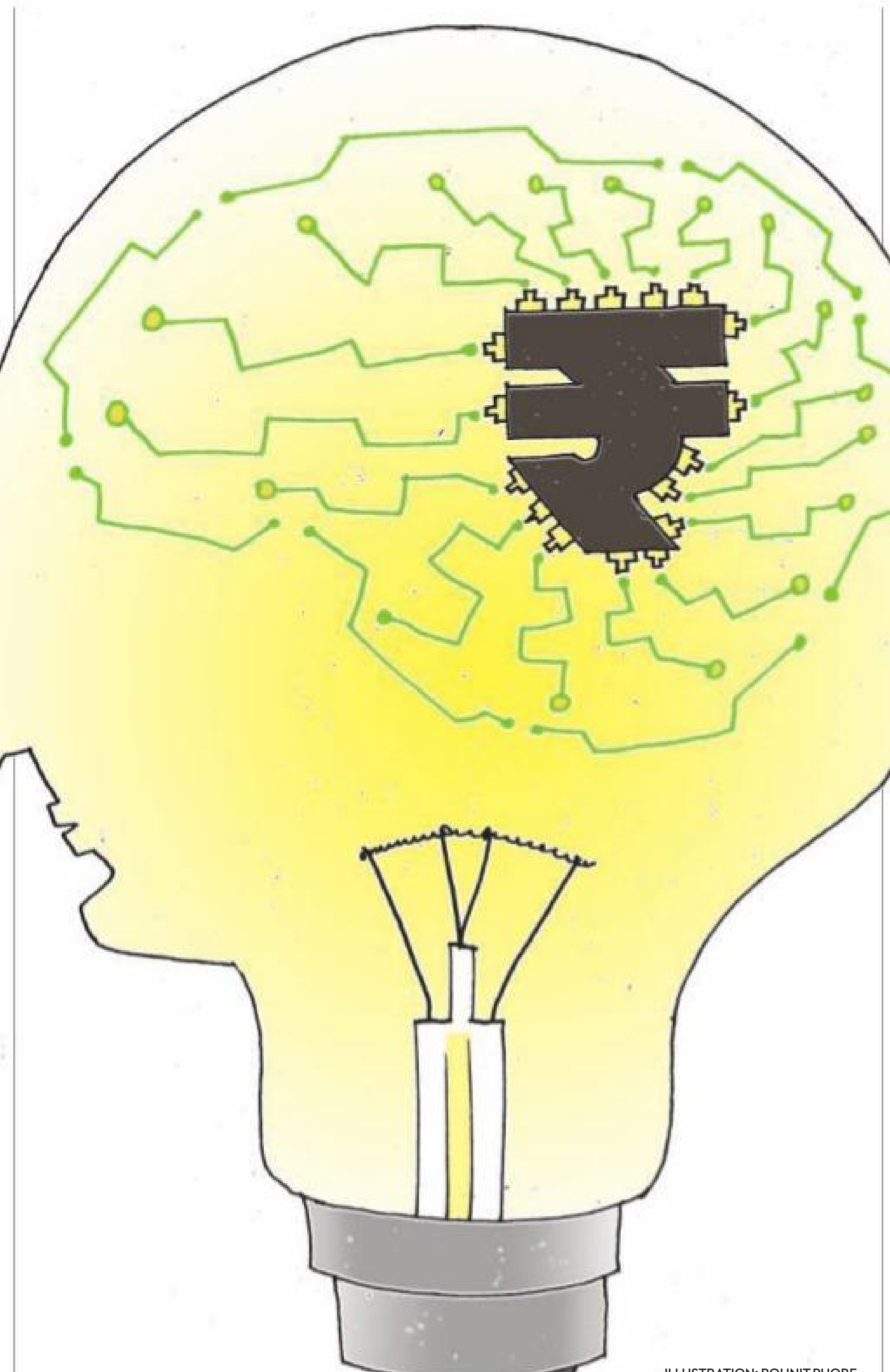

ILLUSTRATION: ROHNIT PHORE

ARTIFICIAL INTELLIGENCE (AI) promises impelling potential for the growth of society and economy in today's times. As India is moving on the trajectory of digital transformation, the growing penetration of digital technologies in the lives of Indians and the generation of huge volumes of data at every interaction point projects a germane use-case for an AI-driven economy. However, for making the ocean of data points work in synergy to transform India as the AI leader, we require the power of AI to address the complex challenges that the country is facing across its demographic diversity.

According to an Accenture report published in December 2017, AI alone can add $957 billion, or 15% of the current gross value added, to the Indian economy by 2035. The economic value can be unlocked primarily through three ways: augmentation delivered through human and machine collaboration, intelligent automation and productivity that comprise $597 billion, $83 billion and $277 billion, respectively. The report further chalks out the transformative potential of AI-driven opportunities in three major areas, including mobilising intelligent automation for complex physical tasks requiring adaptability and agility, empowering existing workforces by complementing and enhancing the skills and abilities, and driving innovation for broad structural transformation of the economy.

The role of AI in the broader economic perspectives of India entails the participation of the government, large enterprises, MSMEs, start-ups, young entrepreneurs and society at large, and this can make AI a game changer. According to a PwC report, AI could contribute $15.7 trillion to the global economy by 2030, of which $6.6 trillion is likely to come from increased productivity and the rest $9.1 trillion would be generated from consumption-driven economy. Similarly, a Gartner report suggests that, globally, AI-derived business value will reach $2.9 trillion by 2021 from the projected $1.9 trillion in 2019. Another report by McKinsey suggests that AI could provide additional economic output of around $13 trillion by 2030, boosting global GDP by about 1.2% a year.

The economic opportunities through AI that India can achieve are huge. Innovation in AI can help us lead to numerous solutions to address societal issues. For example, India's linguistic diversity is a major opportunity for developing AI solutions to unify communication across various digital platforms. AI has a potential to address the challenges of demographic diversity of India. A billion-plus population, and hundreds of languages and dialects open up enormous opportunities for AI-powered solutions in the areas of language, vision, translation, speech, machine reading and comprehension. Localisation of technologies using AI can play a critical role in not only unifying a billion-plus people in resolving social challenges, but will also add value to the economic growth of the country. For instance, intelligent digital assistants like Alexa, Google Assistant, Siri and Cortana are enabling people to use local languages and fetch the desired online services without any hassles. AI can play a major role here as a codec for seamless communication across language diversity.

Today, the agricultural and allied sector contributes around 18% to the $2.97-trillion Indian economy. With 50% of India's working age population employed in agriculture, it's pertinent to modernise agricultural workforce to improve their productivity and ameliorate farmers' incomes. The opportunities for AI in the farm sector are undoubtedly massive. According to a report by Accenture, digital and connected farm services can empower 70 million Indian farmers to add $9 billion to their income by 2020. AI can also support SMEs and make them competitive at a time when the government is planning to increase the GDP share of the manufacturing sector to 25% by 2022. According to the World Economic Forum, AI can build additional value up to $3.7 trillion through Industry 4.0 technologies by 2025.

While the opportunities for AI in India are vast, leveraging these opportunities is the key to transform India as a global leader in AI. Indian information technology (IT) services industries are ferrying exceptionally well in executing R&D projects of global technology companies, but the R&D for own products is not equally impressive. The Indian IT industry can leverage collaborative R&D to produce more home-grown technology products for domestic consumption. Every sector in India, be it agriculture, education, healthcare, transportation or communication, has tremendous potential for AI applications to improve the ecosystem and economic output. Indian IT behemoths have already started delivering AI-based platforms to empower clients transform business processes, automate technology maintenance and execute mundane tasks through AI bots.

As the entire world is looking forward to harness the potential of AI for the growth of the industry and for the betterment of society, India has already taken steps to leverage the potential of AI in all walks of life. To foster AI-led growth across all the sections of the society, the government is taking steps to promote Indian tech talent and skills to achieve national goals. With a unique vision of "AI for All", India can enhance and empower human capabilities to address the challenges of accessibility, affordability and quality of skilled expertise, which, in turn, can help develop scalable solutions for emerging technologies by leveraging collaborations and partnerships among various stakeholders including industry, industry associations, academia, and state and central governments. Besides collaborations, this segment requires a lot of incentivisation and funding support from various stakeholders. As this technology requires massive R&D and innovation, and a highly-skilled manpower for the creation of world-class products, hence sufficient funding is necessary to exploit this technology to its fullest extent.

> **The opportunities for AI in the farm sector are massive. According to an Accenture report, digital & connected farm services can empower 70 million Indian farmers to add $9 billion to their income by 2020**

Pivoted to the visible success of the IT services industry in India, the legacy of technology prowess can further propel the adoption of emerging technologies in various sectors to boost efficiencies, competitiveness, productivity and quality. The adoption of AI across sectors and industries will not only drive competitive edge and operational excellence, but will also considerably improve the quality of life and ensure prosperity for all. Clearly, AI can bring enormous economic and social benefits to citizens across demographics and also help in transforming the country into an economic superpower.

Making our buildings green

KALA S SRIDHAR & S MANASI

Authors are faculty members at the Institute for Social and Economic Change, Bengaluru. Views are personal

ACCORDING TO A recent media report, this year marks the extreme of both droughts and floods in India. This could be largely due to 'climate change' and carbon emissions, but what is little known is the fact that buildings are responsible for at least 40% of energy usage, contributing to greenhouse gas (GHG) emissions, as per the World Business Council for Sustainable Development. Also, the Industry Institute Partnership Cell has estimated that, by 2050, buildings are projected to emit 3,800 mega tonnes of carbon. And the United Nations Environment Programme reports that nearly one-third of the total GHG emissions are from buildings.

Cities are a concentration of built-up area, so green buildings are a sustainable way of reducing the likelihood of cities becoming storehouses of GHG. It is estimated the Indian building stock would reach 100 billion square feet by 2030, so buildings must be a target for city-level sustainability.

Green buildings rely on renewable resources such as the sun, water and wind, minimise demand on non-renewable resources, and maximise utilisation efficiency through reuse and recycling. Green buildings have plenty of natural light and ventilation, reduce the need for electricity, and use recyclable materials. One of the earliest modern green/intelligent building is the India Habitat Centre in New Delhi, whose exteriors are designed such that they are cleaned every time it rains. The IPCC reports that energy-efficient buildings and utility systems reduce energy demands by as much as 40%.

So, what does it take to have green buildings in our cities? Globally, green buildings are certified by an independent body, the US Green Building Council (USGBC), through its LEED (Leadership in Energy and Environmental Design) certification, which focuses on sustainable sites, water efficiency, energy performance, use of recyclable materials and indoor environmental quality. GRIHA (Green Rating for Integrated Habitat Assessment) is India's rating system that assesses buildings in a three-tier process—pre-construction building planning, construction & building, and operations & maintenance. Buildings that adhere to the Energy Conservation Building Code of the government are expected to have energy savings of 40-60%.

> **If 'green' concepts are incorporated early on in design, a green building may cost no more than a conventional building**

Also, contrary to perception, green buildings are not costly—if 'green' concepts are incorporated early on in the design process, a certified green building may cost no more than a conventional building. The cost, over time, is expected to get lesser with the development of the green building industry. Those living in green buildings consume less water—90 litres per capita daily (LPCD)—as compared to conventional building residents (150 LPCD). Buildings specifically designed to produce less waste reduce construction waste by 50%. Waste generation is reduced right from construction stage, where recyclable material is used in construction, and waste is also sent to recycling units.

But despite their advantages, there are several challenges, including limited awareness about benefits, misconceptions about costs, the lack of required training to contractors, their own limited knowledge about appropriate building materials, or energy-efficient appliances, the lack of required local suitable material such as stone of varied kinds, leaf material, or bamboo ... and all of these need to be addressed urgently.

Here, electricity distribution agencies have a role to play. The Bangalore Electricity Supply Company (BESCOM) has been promoting energy-efficient buildings. The number of solar water heating systems installed by BESCOM increased from 6,187 in 2008-09 to 72,749 in 2014-15. Bengaluru is the first city in India to have introduced an incentive mechanism by providing a rebate of 50 paise per unit of electricity consumed for residents who have rooftop thermal systems installed. These systems have been made mandatory for all new structures, with residents opting for such solar installations being given a subsidy of 5% on their power bills. When users see the benefits, the idea tends to spread faster.

It is not a well-known fact that India has the highest number of green buildings in the world, which is the outcome of its traditional knowledge. India was also ranked second amongst the list of top-ten countries by the USGBC for LEED outside the US. Hence, India should use its abundant natural resources such as the sun and wind to protect its built environment, cut costs, and promote sustainable cities.

Mining sector can create lakhs of jobs

As per 12th Five Year Plan, for every 1% increase in economic growth, the mining sector creates 13 times more employment than agriculture and six times more than manufacturing

RK SHARMA

Secretary general, Federation of Indian Mineral Industries

MINING IS A labour-intensive industry and has a huge potential for employment generation; it can play a pivotal role in creating more avenues for job opportunities, particularly in the hinterland and backward areas, which have limited potential for other economic activities. Given the current unemployment crisis, it is believed that employment-intensive growth is the key to utilising India's demographic dividend and ensuring a remarkable growth story. In addition, it acts as a significant variable towards achieving a sustainable and inclusive growth.

The mining sector has emerged as the third-largest employment-generation sector. Of the eight core sectors of the economy, five—i.e. coal, steel, cement, electricity and fertilisers—are primarily dependent on raw material supplies from mines. Currently, the mining sector is passing through a sluggish growth and is suppressed. Addressing the unemployment issue in such a situation, both in rural and urban India, is a challenge.

As per the PLFS (Periodic Labour Force Survey) report, unemployment in India during 2017-18 was 6% (7.8% in urban areas and 5.3% rural areas), which makes it a 45-year low for jobs in India. According to a CMIE report, the rural unemployed in May 2019 were nearly 44% higher than their count in May 2018. On the other hand, the country's working age population, or those above the age of 15, is expanding by 1.3 crore a month. The average urban unemployment rate during the first five months of 2019 was 8%, as compared to 6.1% in the corresponding months of 2018.

On increasing unemployment rate, we have always believed that India is reining under the syndrome of opportunities lost within the country.

It is known that creating jobs is not easy for the government sector, and the private sector must play, and has always played, a significant role. The private sector has also supported towards enhancing skill development programmes for the youth to encourage self-employment. The mining sector alone has the potential to absorb such trained manpower, particularly from the rural sector. But this can happen only if the sector itself is on a growing path.

The five sectors dependent on raw material from mining are already under pressure to buy much costlier raw material through imports. Even though India has the required raw materials in abundance, the lack of exploration, non-simplified policies and delayed approvals have resulted in decline in extraction of minerals and this has led to the sluggish growth in mining. Even the sustenance of some of these sectors that are dependent on raw material from mining is being threatened.

The growth in the mining sector has always benefited employment generation in relatively backward states that have low per capita income than national averages. These are Jharkhand, Rajasthan, Odisha, Chhattisgarh and Madhya Pradesh, which constituted about 54% of India's mining sector's GDP and about 37% of sectoral employment in 2011-12.

Mining employed about 23 lakh people in 2011-12 across the organised and unorganised sectors. Since the ratio of direct to indirect employment in the mining sector is 1:10, it is estimated that around 2.3 crore people gained employment through the mining sector in 2011-12. This also included employment generated in secondary and ancillary sectors.

The potential and scope of mining towards employment generation is immense. As per the 12th Five Year Plan, for every 1% increase in economic growth, the mining sector creates 13 times more employment than agriculture and six times more than manufacturing.

With the right kind of government support and reforms, by 2025 the mining sector has the potential to provide employment opportunities to about 50 lakh people directly and create overall employment opportunities for about 5 crore people.

India would need significantly higher contribution by the mining sector in the GDP if the country wants to become a $5-trillion economy and achieve 8% GDP growth. But, as of now, the trend in the mining sector is negative; its contribution to GDP is decreasing. The value of mineral production in India increased from ₹1.77 lakh crore in 2012-13 to ₹1.99 lakh crore in 2017-18, and the country's GDP growth also increased from 5% in 2012-13 to 7% in 2017-18. But, on the other side, the mineral sector (excluding petroleum and natural gas) contribution to GDP went down from 1.93% in 2012-13 to 1.53% in 2017-18.

With a view to put the mining sector back on the growth path, it is imperative to facilitate a regulatory regime and build a conducive framework for the ease of doing business. For India to achieve its aim of becoming a $5-trillion economy in the next five years and a $10-trillion economy in 8-10 years, it has to fast-track the growth of the mining and minerals sector.

Economic development generates employment opportunities; thus, all the sectors that have the potential to contribute immensely to economic development must be provided equal opportunities for growth and be assessed eventually.