Opinion

TUESDAY, NOVEMBER 26, 2019

JAL, JUNGLE, JAMEEN
Prime minister Narendra Modi

The BJP governments at the Centre and the State would continue to protect Jharkhand's *'jal'*, jungle and *'jameen'* [water, forest and land], no matter what the Opposition parties say

RationalExpectations

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Why isn't govt at SC on AGR ruling?

PSUs that have little to do with telecom are facing demands of lakhs of crores, so govt should also be challenging the SC order

EVEN UNDER NORMAL circumstances, given how the Supreme Court's (SC) Adjusted Gross Revenue (AGR) judgment threatens the existence of big private telecom players like Bharti Airtel and Vodafone Idea—they have to pay the government ₹43,318 crore and ₹49,155 crore, respectively, within 90 days—you would expect any responsible government to intervene, and try and find a solution; what was offered, though, was a farce, a mere moratorium on paying spectrum-purchase-dues for two years—₹11,476 crore for Airtel and ₹23,920 crore for Vodafone Idea.

Apart from the lakhs of jobs that will be lost if any of these telcos shuts down, and the chilling impact this will have on investments in India—Vodafone alone has invested $30billion in India—as *FE* has pointed out earlier (*bit.ly/2pOtzM1*), the government stands to lose around ₹1.7 lakh crore over the next decade if Vodafone Idea shuts down. If government owned banks find it prudent to reduce the penalties and interest-upon-interest component when they are negotiating settlements with firms that owe them money, surely the government should be doing the same?

Indeed, the government approached the matter in bad faith since, apart from it wanting to include non-telecom revenues—like the interest on telco profits that were deposited in banks!—the definition of AGR was never really examined by a neutral body like the Telecom Dispute Settlement and Appellate Tribunal (TDSAT). TDSAT ruled in favour of the telcos on various occasions, but didn't get to make a final ruling on the matter when SC said in 2011, after the government petitioned it, that the AGR was a licence condition and so TDSAT couldn't rule on it. If this isn't bad faith, it is not clear what is.

Airtel's review petition in the SC, in fact, argues that all AGR orders given by the government were set aside by various courts in 2006, 2007, 2011, and 2015; so, if the SC judgment was the first time the government's AGR definition was upheld by court, how could it levy penalties and interest upon this? This has resulted in what Airtel calls 'unjust enrichment' since the government is now getting more than 300% of what it would have got had it won the original appeals.

And, while the government has gone to town saying that private telcos like Bharti Airtel and Vodafone Idea always knew they had to pay the AGR dues, so it is shocking that they did not make provisions for this in their accounts, how does the government explain that the two telecom PSUs—MTNL and BSNL—also followed the same policy? Why didn't they pay the dues each time the government sent them a notice, and why didn't they provide for this? After all, they were not profit-maximisers in the way the private sector is.

If this isn't enough to get the government to shed its why-should-I-intervene approach, surely it should be worried that several PSUs can shut down if the SC's AGR ruling is fully implemented. When the matter was being discussed in the government over the last few weeks, an internal committee of the telecom ministry gave the group of secretaries examining the issue a break-up of the notices that have been sent to PSUs like GAIL, or Powergrid, or even the Delhi Metro. The numbers are shocking, to say the least.

Wiping out PSUs

(AGR dues, ₹ crore)

Private sector	
Bharti Airtel	43,318
Vodafone-Idea	49,155
Public sector	
Power Grid	22,168
GAIL	1,72,656
Delhi Metro	5,482
RailTel	307
STPI*	90

*Software Technology Parks of India

Take the case of Powergrid, which had a national long distance (NLD) licence as well as an internet provider licence. While Powergrid reported AGR revenues of ₹3,566 crore from these licences since 2006-07, the government said its revenues were ₹1.3 lakh crore! As a result, Powergrid has to pay ₹22,168 crore of AGR dues. It has been getting notices on the dues regularly since 2009 itself, and, quite worryingly for the government, like the private sector telcos, it never made provisions for this either. If a firm, a PSU at that, has to pay seven times its telecom revenues as AGR, this is a huge travesty; as per the government's understanding of AGR that SC reaffirmed last month, even several items of non-telecom revenues have to be added to the AGR.

It gets worse in the case of GAIL, which had an internet licence and a mobile licence. The company declared its telecom revenues as ₹35 crore since 2001-02; so, it is fair to assume no one senior in the PSU ever looked at the telecom business since it wasn't even a serious revenue-generator, let alone a profit-source. Well, the management must be tracking this since the notices it has been getting for the last two years put the AGR at ₹249,788 crore! And, once you include the penalty, the interest upon interest, etc, the AGR dues add up to ₹1.72 lakh crore.

So, even if the government wasn't moved by the plight of the private telecom players—though it should have been, given what was at stake—it must surely wake up now that several PSUs could find themselves in deep trouble. Or, is it that the government doesn't plan to collect the money the PSUs owe, or, perhaps it feels that it doesn't really matter since, essentially, one arm of the government will be paying money to another. But, if the money is given to the PSUs as a loan—and then used to pay the AGR dues—this will add to the PSU debt; so, is the government planning a cash-infusion of some sort? And, surely, the AGR demands must be reported in the interest of full transparency?

Indeed, the matter is so grave that not just the telecom minister, even the law minister (both ministries are held by the same person), the power minister, the petroleum minister, and the finance minister—and possibly even the prime minister—needed to have been in a huddle to find a solution. It is not clear why the government wasn't the first party to implead itself in the review of the Supreme Court order. Perhaps it will do this once its preoccupation with forming a government in Maharashtra—and the resultant Supreme Court case—is complete.

FoodTALK

FSSAI seeing red over McDonald's *ghiya-tori* ad is a typical case of a regulator missing the wood for the trees

THE UNDERFUNDED AND UNDERSTAFFED Food Safety and Standards Authority of India (FSSAI) sure found the resources to wade into an advertising controversy. The food regulator has just served McDonald's a show-cause notice over an ad that it believes disparages healthy options like *ghiya-tori* (bottle gourd and ridge gourd). "Tendency of the food companies to disparage freshly cooked food and vegetables that are healthier is a matter of grave concern," FSSAI has said, adding that such advertisements are against national efforts for promoting healthier eating habits. FSSAI has launched campaigns that focus on healthy eating habits. But, censuring them for ads is a bit too much, especially when the body has far more pressing matters at hand—for instance, patchy supervision over eateries.

While it is true that the Food Safety and Standards (Advertising and Claims) Regulations, 2018, require advertisers to get prior permission from FSSAI to show their product as a meal replacement—a Dominos ad can't depict a pizza as a replacement for home-cooked food—the fact is that Indian regulation often misses the wood for the trees. Even as FSSAI goes after ads 'disparaging' *ghiya-tori*, there are allegations that it brought in experts funded by processed food companies to decide on disclosure standards for processed food companies. Advertisements from *pan masala* makers are allowed, but alcohol brands can't market their products—in an Oz-like scenario, the latter market their products with proxy ads that feature music compilations to club soda. While marketing does impact consumer preferences—even WHO has spoken against false marketing—FSSAI can surely push healthier food without banning ads.

GST

CBIC'S ARGUMENT THAT THAT THERE WILL BE A TAX CREDIT AVAILABLE AT THE RECIPIENT LOCATION, AND THUS, THE COMPANY WON'T INCUR EXTRA COSTS, MAY NOT ALWAYS HOLD

Taxing C-suite salaries

TARUN JAIN
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Views are personal

THE RECENT MEDIA REPORTAGE of an alleged plan to levy GST on C-suite and other corporate salaries, and an immediate clarification by the Central Board of Indirect Taxes (CBIC) has focussed much attention on the issue. The debate necessitates introspection, owing to the consequences of such a decision, were it to be taken. At its heart, lies conferment of a distinct entity status, under GST law, to branches of a business entity that are deemed to be 'distinct persons', and the belief that their *inter se* supplies are taxable.

One of the axioms of the GST is that it is a destination-based consumption tax. In other words, the tax revenue should accrue to that jurisdiction within whose geography the taxable supplies are consumed, irrespective of the location of the service provider. This concept is accentuated in its dimensions in the context of GST as it has evolved on the basis of subsumation of the taxing-entitlement of the states. The Indian GST must, therefore, protect fiscal sovereignty and revenue buoyancy of the states by ensuring that tax revenues flow to the state where consumption occurs.

As a corollary, GST must be given its full play even in the context of supplies where the legal recipient is located in one state, but the consumption happens across branches located in other states. In such instances, the GST applicable to such supplies must be apportioned to ensure the tax revenue is equitably distributed. This conceptual tenet is effectuated under GST laws through the concept of distinct persons. The GST laws provide that, ordinarily, one person shall be granted a single registration for each state. Such person, however, would be granted separate registration in each state where an office or branch is engaged in making supplies. Each such branch is, thus, deemed to be a separate entity for the purpose of GST laws. To illustrate, a company with branches in 18 states will have 18 distinct GST-personalities.

The consequence of such an arrangement is that any transaction between the branches, subject to application of GST regulations, is considered a taxable supply upon which the appropriate tax must be paid. Furthermore, on an inward supply received by the head office, the benefit of which supply is shared by various branches, must be proportionately distributed across the branches. In effect, thereby, each branch represents a distinct taxing unit for GST purposes, and appropriately discharges the GST liability in the state of its presence, notwithstanding that the supply made has been made or consumed within the same legal entity. This mechanism is understood to ensure each state its GST entitlement without there being any inequitable accrual of tax proceeds in the state where the registered head office, that pays for entirety of the inward supply, is located.

In practical terms, the effect of this framework is that the business entity is not just obliged to prepare separate accounts for each of its branches located in different states but also must carry out GST compliances for each. The tax authorities, conversely, would also expect such entity to proportionately bifurcate the costs and revenues across such branches in a manner that the corresponding credits and tax-share are transferred to the concerned state where the branch is located.

The root of the debate perhaps lies in the failure to appreciate and imbibe the effect of these legal changes that have been in vogue for over two years. Thus, the business community gasped with each successive ruling of the GST Authority for Advance Rulings (AAR) when it opined on the business dynamics at the intersection of GST framework. To illustrate, in the case of a crane-leasing business (*Sanghvi Movers*) having its branches in multiple states, the AAR concluded that each inter-state movement of the cranes across branches constituted a distinct supply, rendering it liable to GST even if there was no flow of consideration on such movement. In another illustration, the AAR answered in the affirmative (*Cummins India*) the question of whether allocation of costs to other locations for the common input supplies received by one location qualified as supply and attracted levy of GST.

> Given that the conferment of a distinct identity to the inter-state branches of an entity aims to ensure *inter se* equities between the states, it is doubtful that either the concept or the concomitant statutory provisions will be revisited

This implies that a company with multi-state presence must proportionately distribute the audit cost across locations (and also charge GST thereon) where the head office engages an accounting firm to undertake an audit, irrespective of the fact that the invoice for such services is issued on the head office. This is exactly what the CBIC has stated in its clarification. It rules out the levy of GST on CFO salaries, which is an out-of-scope supply, being an employer-employee transaction. However, the clarification goes on to add, invoking the distinct person concept, that the component of the CFO salary distributed to its branch offices is nonetheless subject to GST. For that matter, earlier, the AAR (*Columbia Asia Hospital*) had concluded that services by employees housed under the corporate office provided to branches in other states are, without exception, liable to GST.

The CBIC seeks to play down the consequence by stating that GST charged on such distribution would be available as credit to the recipient location, and thus, there "is not any additional cost to the organisation". As a proposition, this statement, though correct, is not an imperative reality. For illustration, one of the branches may be engaged in rendering partly- or wholly-exempted services. In such a case, the complete credit would not exist. Going further, even if the credit is available, it does not necessarily imply a tax-neutral position for the branch. For illustration, the credit available with the branch may be far in excess of its liability to pay GST. In such eventuality, colloquially referred to as inverted duty structure, the credit only accumulates over time, and is, thus, a mere book asset without any practical significance.

The purpose of this discussion is to ensure that businesses are not overwhelmed by the din and criticism, but come alive to pragmatic realities by playing out the consequences of this seemingly inviolable tenet of GST law. Given that the conferment of a distinct identity to the inter-state branches of an entity aims to ensure *inter se* equities between the states, it is doubtful that either the concept or the concomitant statutory provisions will be revisited. Thus, if the organisational processes need to be realigned to factor the consequences, so be it. Without delay, businesses must adapt to these obvious and natural consequences of conceptual changes in the indirect tax regime which GST represents.

Imagining a New Green Revolution

Delhi choking on burned paddy stubble is a national problem, not a regional one; it can only be solved by a major overhaul of the PDS system

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THE GREEN REVOLUTION of the 1960s saved the people of India from chronic food shortages, and the government from the embarrassment of having to receive foreign charity. The label refers, of course, to the introduction of high yielding varieties of grains, especially wheat and rice, combined with irrigation, and use of chemical fertilisers to increase yields and total grain output. In India, the Green Revolution is closely bound up with the then-state of Punjab (now Punjab and Haryana), where the innovations first took hold, and with the working of the PDS, which procures wheat and rice at minimum prices and makes them available to consumers at subsidised prices.

More recently, the label "Green" has come to mean something quite different, namely, protection of the environment, including air, water, plants, and animals—that is, the ecosystem. It is the height of irony, therefore, that one of the consequences of the original Green Revolution is to work against "greenness" in this newer, world-sustaining sense. Matters have come to a head with the widespread, life-threatening pollution caused by burning of paddy stubble in Punjab and Haryana. The Supreme Court has acted decisively, if somewhat emotionally, by demanding that this burning come to a complete stop. The desired outcome is understandable because of the scale and severity of the problem. But, the court's punitive approach towards farmers, inevitable given the scope of what it can do, will not solve the longer run and deeper underlying problem. The SC has chastised the two state governments, with some justification, but the true causes lie in the policies of the Union government.

Over five decades ago, India's government needed to solve the problem of food shortages, and vigorously promoted the Green Revolution. Punjab, for various reasons, took the lead. Enhanced prosperity followed for the state along with a sense of pride in feeding the nation, in being India's breadbasket. But, already by the early 1970s, problems were beginning to emerge. The rivers of the plains of Punjab and Haryana that remained in India were not able to provide enough water to meet the demands of the new growing technologies. This problem grew worse when rice began to be grown in Punjab, following the lead of wheat: the PDS and the logic of crop rotation drove this shift to rice from other crops, creating a wheat-rice cycle that further locked in farmers.

Without enough water from rivers and canals, tubewells powered by electric pumps became a major source of water for irrigation. The political economy of the two states, especially Punjab, dictated free water and power to keep the Green Revolution going. Groundwater levels began to fall precipitously. Attempts at crop diversification failed in the face of the dominance of the PDS and guaranteed minimum prices for wheat and rice: change was too risky for farmers. The response was to force delay in planting paddy to reduce demands on groundwater. This worked, to some extent, but squeezed the timing of the wheat-rice cycle so much that burning the paddy stubble became the only viable solution for farmers already struggling with diminishing returns and lack of power *vis-a-vis* larger intermediaries providing inputs and credit.

Delhi is choking because the Green Revolution was pushed to the point where it became distortionary and dangerous. Even if stubble burning is stopped by paying or punishing farmers enough, Punjab will turn into a desert in just a few years. The Green Revolution contributed to a particularly disastrous mix of politics, economics, and religion in Punjab; the state has lacked good governance and fiscal resources for a long time. The Supreme Court's approach to the problem, while legally impeccable, is likely to exacerbate conflict: already one is reading about farmers burning paddy stubble as a protest against the larger forces that are destroying the last vestiges of the great hopes that were once associated with the introduction of high yielding varieties.

The bottom line is that this is a national problem, not a local or regional one. And, it will be solved not by piecemeal and punitive measures, but by imagining and implementing what I call a New Green Revolution. In this case, the colour will be more appropriate, since apparently the original name came from a US official offering an alternative to the "Red Revolution" in the Cold War era. A New Green Revolution will involve crop diversification, economic diversification (including animal husbandry, food processing and more), a reinvented agricultural extension system, implementation of numerous technologies for saving water, reducing use of chemical fertilisers, and a major overhaul of the PDS system, indeed, of India's policy thinking about food security.

A New Green Revolution will require a deep version of cooperative federalism, not one where the Centre and states just bargain over an existing pie such as tax revenues, but cooperation in redesigning economic institutions (both public and private), regulatory schemes, and market interventions. Cooperation will have to be not just between the Centre and states, but among the states themselves, particularly Punjab, Haryana, and Himachal Pradesh.

Most of all, a New Green Revolution will have to involve a shared vision with the people of the region, and of the country, about what future prosperity can look like. Farmers in the 1960s certainly followed economic incentives, but they also felt they were part of a national vision of improving the lot of the entire population. India's politicians have failed to create a concrete new vision; maybe choking on burned paddy stubble can change that.

LETTERS TO THE EDITOR

Maharashtra politics

As things stand today, there is no semblance of morality left in Maharashtra politics, with parties in the mainstream having displayed their utter disregard to constitutional propriety, and established democratic conventions in their unseemly pursuit of power. When the Shiv Sena-NCP-Congress alliance came together by keeping their ideological differences at bay, it was termed a big disrespect to the mandate of the people of the state. But, the Saturday midnight coup, with NCP's legislature party leader Ajit Pawar joining hands with BJP, allowing it to form the government with the support lent by the governor of the state marks a new low in the already murky state of affairs afflicting Indian political landscape now. With the Supreme Court taking cognisance of the way in which BJP's Fadnavis government was formed in Maharashtra, one hopes the higher judiciary will order a floor test immediately, and restore a semblance of constitutional propriety in the state's politics.
— M Jeyaram, Sholavandan

Pawar vs Pawar

While the ding-dong battle for supremacy in Maharashtra continues to make headlines, the tussle between the two Pawars—Sharad and Ajit—has also taken centre stage. Though Ajit Pawar, the new deputy chief minister, dropped no hints that he was regretting his decision to team up with the BJP, and claimed that he, as the legislature party leader, has the power to issue a whip to all party members, this has been rubbished by NCP chief Sharad Pawar. The ability of these two leaders to call the shots and draw party MLAs to their side could decide the BJP's fate.
— NJ Ravi Chander, Bengaluru

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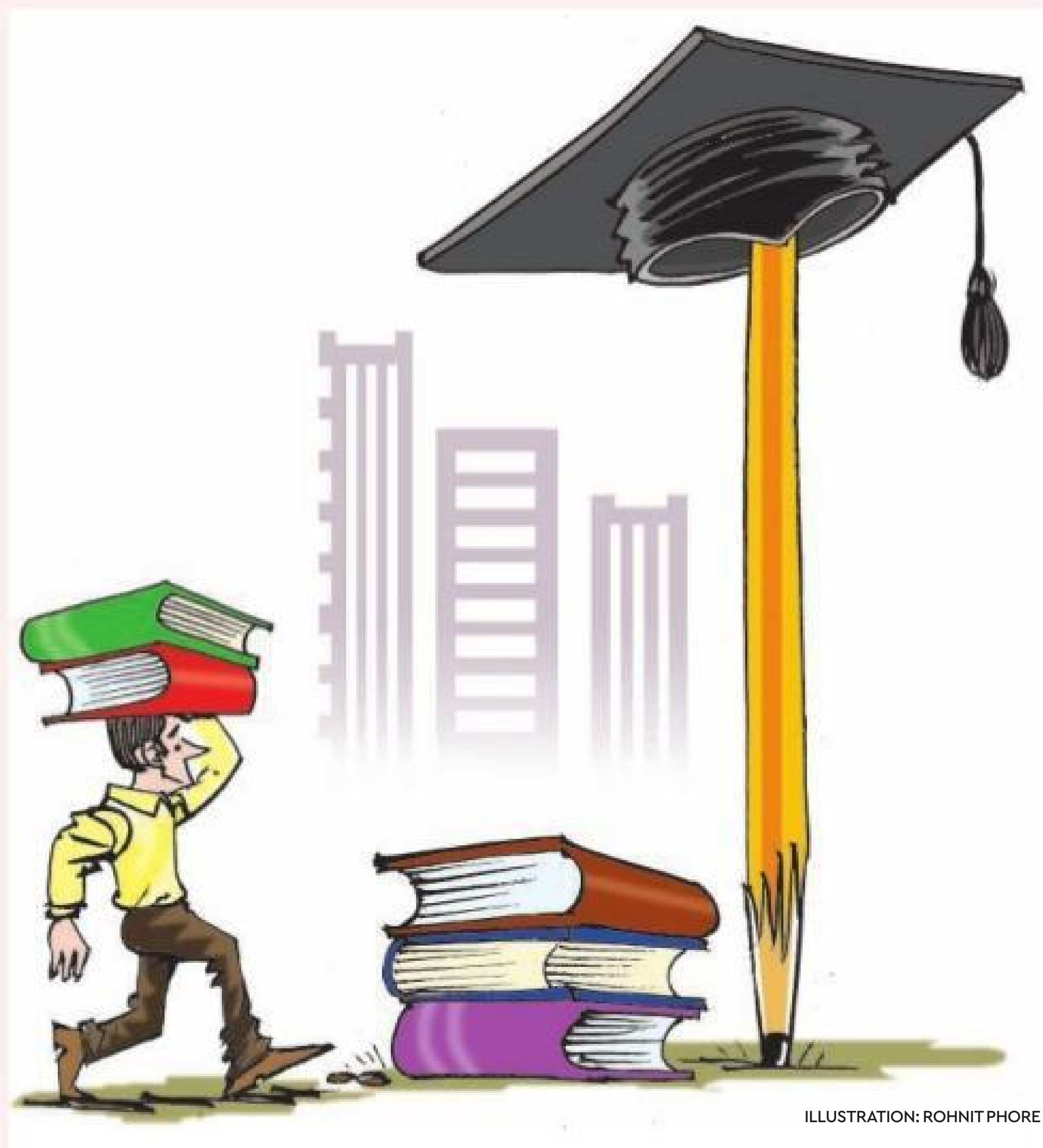

ILLUSTRATION: ROHNIT PHORE

TV MOHANDAS PAI & NISHA HOLLA

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India must invest in domain competency

Or risk being left behind

BUILDING DOMAIN EXPERTISE is crucial for a growing economy. Many verticals are critical for nation-building—science and technology, healthcare and medical professionals like doctors, finance, business administration, commerce, law, culture and history, education, and so on. The critical question is: Which domains is India building competence and capacity in?

In 2018-19, 3.74 crore students enrolled in higher education across the country. The accompanying graphic shows enrolment in top-five fields of study—Bachelor's in Arts, Science, Commerce, Technology and Engineering, and Education—for the past five years, as also the number of graduates from the same. The breakup in enrolment across the top-five fields is 1.09 crore (BA and BA Hons), 52.6 lakh (BSc and BSc Hons), 40.3 lakh (BCom), 37.7 lakh (BTech and BE combined), and 12.2 lakh (BEd). MBBS students made up 2.7 lakh while the remaining fields made up 1.2 crore combined.

In 2018-19, a total of 90.9 lakh graduated from India's higher education base, with 23.3 lakh (BA and BA Hons), 11.65 lakh (BSc and BSc Hons), 9.65 lakh (BCom), 8.2 lakh (BTech and BE combined), 5 lakh (BEd), and 51,000 (MBBS) graduates, while the remaining fields made up 32.5 lakh combined.

The most popular field in India, by far, is BA, followed by BSc with half the enrolment. However, enrolment in BA and BA (Hons) degrees is stagnating, indicating that as the diversity of subjects offered by India's higher education base increases, India's youth may be diverging from traditional pursuits of previous generations. India has produced 1.22 crore BA graduates from 2014-15 to 2018-19. Going by the gradual decline in enrolment, this may slowly start reducing.

Enrolment in BSc and BSc (Hons) degrees is growing at 3.24% CAGR. India has produced 53.5 lakh BSc graduates from 2014-15 to 2018-19. With enrolment rising at 3.24%, the country will produce more in the coming years—a great sign as scientific expertise is useful for our innovation engine. Care must be taken to build capacity in research opportunities for these graduates so they can continue applying their competencies after graduation.

The negative 2% CAGR in enrolment in BTech/BE courses is concerning. The number of graduates peaked at 8.85 lakh in 2016-17 and declined to 8.18 lakh in 2018-19. Technological development is one of the most critical drivers of socio-economic growth. An immediate focus is required to increase the number of engineering and technology graduates. A decline in capacity and enrolment might stem from poor quality colleges being shut down. India needs engineering institutions at scale, with research, laboratories and qualified teachers. Strategies to incentivise youngsters can include scholarships and platforms like Atal Tinkering Labs (ATL) to develop an innovation mindset in school students.

Investment in BCom is increasing at 1.6% CAGR, and we have produced 45.36 lakh graduates over five years. India is among the world's most exciting financial development sandboxes, and specialists are essential. Now we must focus on introducing more graduates to out-of-the-box opportunities in fintech and other new frontiers.

Healthcare is a significant concern around the world. India, with its 130-crore-plus population, is building a comprehensive healthcare system; we need a critical mass of doctors for this. Enrolment in MBBS has grown from 1.7 lakh in 2014-15 to 2.7 lakh in 2018-19, at a promising 9.9% CAGR. There have been 1.9 lakh graduates in five years, most of whom are pursuing PG degrees. We have to increase the capacity of not only MBBS, but follow-on degrees as well.

BEd enrolment is growing at a fast pace, at 11.8% CAGR. However, the number of children enrolling in schools has stabilised, as analysed previously (*FE*, 'Need urgent action to reap demographic dividend'; *bit.ly/2qMa8Uz*). MHRD data also indicates pupil-teacher ratios in schools are stable. Soon, the need to recruit teachers will mostly come from having to replace retiring staff. There is an urgent need for data-based forecasting; else, we may shortly find that we have excess qualified teachers.

Focus on specialisation

Specialisation enables productivity improvements in society, an increase in innovation, and the ability to produce a greater variety of products and services to meet our growing needs.

In 2018-19, 1.69 lakh students were enrolled in PhD programmes, while 39.8 lakh were enrolled in PG programmes. This amounts to 0.45% (PhD) and 10.6% (PG) of total enrolment. The breakup in select fields shows 6,000 PhDs and 27,800 PGs in agriculture, 5,400 PhDs and 4.5 lakh PGs in commerce, 6,200 PhDs and 2 lakh PGs in education, 41,900 PhDs and 1.82 lakh PGs in engineering and technology, 2,870 PhDs and 1.97 lakh PGs in IT and computers (in addition to computer engineers in the engineering and technology category), 7,400 PhDs and 1.59 lakh PGs in medical sciences, and 44,700 PhDs and 5.87 lakh PGs in sciences. A total of 40,813 PhDs and 15 lakh PG degrees were awarded. India needs more specialists to lead research and innovation efforts across several disciplines.

Agriculture innovation will be an essential factor in India's reorganisation of sectoral workforces (*FE*, 'Urbanise India to eliminate poverty'; *bit.ly/2Dd13H5*); 'commerce', in India's financial infrastructure development strategies; 'education', in determining new ways to educate, upskill and enable continuous learning; 'medical sciences', as we re-engineer our healthcare delivery; 'scientific and technological development', and others. The low number in IT and computers is troubling; with the world's advancements in artificial intelligence, machine learning, quantum computing, data analytics and others related to IT and computers, we need to be more aggressive in this field.

India must study domestic and global scenarios to understand the domains that will be valuable, going forward, and invest in building competencies there. China has set a great example in the realm of quantum computing and artificial intelligence. With in-depth investment strategies and incentives for their top talent, China is surpassing even the US in this field. If India doesn't start investing in domain expertise, we risk being left behind in the new world.

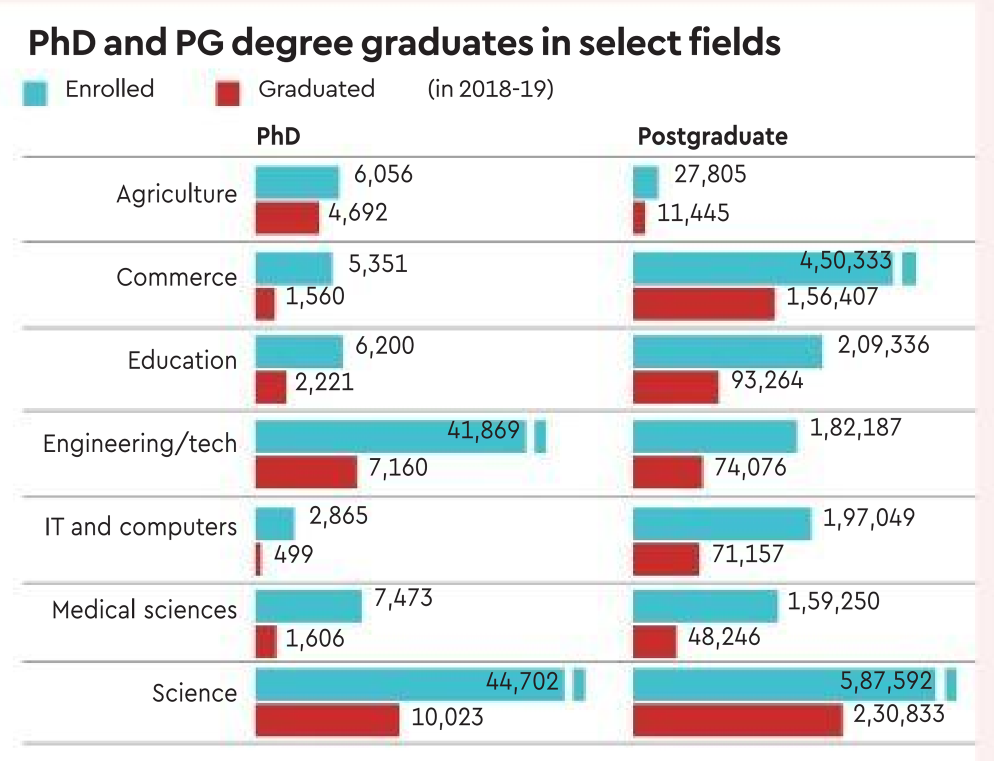
Enrolment in higher education fields

Year	Total	BA (+ Hons)	BSc (+ Hons)	BCom	BTech + BE	BEd	MBBS	Others
2014-15	**3,42,11,637**	1,10,07,937	44,87,854	37,20,115	41,67,320	7,00,785	1,66,878	99,60,748
2018-19	**3,73,99,388**	1,09,89,083	52,63,262	40,30,325	37,69,959	12,23,858	2,67,197	1,18,55,704
5-yr CAGR	**1.8%**	-0.03%	3.24%	1.61%	-1.98%	11.8%	9.87%	3.54%

Graduates/pass-outs from top higher education fields

Year	Total	BA (+ Hons)	BSc (+ Hons)	BCom	BTech + BE	BEd	MBBS	Others
2014-15	**88,28,545**	25,51,758	9,41,149	8,23,882	8,10,109	5,46,774	31,474	31,23,399
2015-16	**88,49,357**	25,02,405	9,72,132	8,59,175	8,41,743	5,46,233	34,424	30,93,245
2016-17	**89,53,086**	24,90,247	11,23,442	9,48,463	8,85,592	3,99,899	35,451	30,69,992
2017-18	**89,68,546**	23,89,001	11,51,903	9,39,107	8,62,746	4,43,704	38,107	31,43,978
2018-19	**90,91,898**	23,28,093	11,65,095	9,65,856	8,18,979	5,08,332	51,283	32,54,260
5-yr total	**4,46,91,432**	1,22,61,504	53,53,721	45,36,483	42,19,169	24,44,942	1,90,739	1,56,84,874

Source: AISHE



INDIA-JAPAN TIES

On track with high-speed rail

ROHIT BERRY

The author is partner & head, Deal Advisory, KPMG in India

How high-speed railway can give an impetus to the 'Make in India' initiative

INDO-JAPAN TIES, recognised as Asia's fastest-growing bilateral relationship, go back a long way, starting with building cars and having come a long way with both the countries collaborating to build the first bullet train in India. The number of Japanese companies in India has seen a steady rise over the years, and will only strengthen with India aiming to become a $5-trillion economy in the next five years. Japan has played an important role in India's economic development, and with this ₹1-trillion high-speed rail project between Mumbai and Ahmedabad, this relationship is set to strengthen. Ensuring sizeable investments and technological expertise from Japan is likely to have a multiplier effect on the Indian economy.

FDI from Japan forms up to 8% of India's total FDI (2000 to 2017). The number of Japanese companies operating in India went up to nearly 1,370 in 2017 from a mere 550 in 2008. Japanese investments have grown from $266 million in 2005 to $4,709 million in 2017.

India's growing economic prosperity and Japan's investment-friendly policies have led to several projects being financed by Japanese organisations. In terms of investment, the auto sector has seen maximum contribution by Japanese investors, followed by pharmaceuticals, and both sectors have witnessed significant investments over the years.

India's need to improve connectivity for economic and social development has been paramount and this formed the basis for the high-speed rail project. In terms of adaptation, Japan's Shinkansen has transformed the way its citizens perceive commuter rail network, and India will benefit greatly from this technology.

> The high-speed rail project can create many employment opportunities, with up to 20,000 construction jobs, 4,000 direct employment for operations, and 20,000 indirect jobs

A strategic collaboration is critical to the success of the project. The technology behind high-speed rail is new to India, and Japanese companies can play a major role in filling this gap. The required assets, from rolling stocks, other small and meticulous parts to electrical signalling, are expected to come from Japan. Large manufacturing companies as well as multinational trading houses, which will lead the consortium of medium and small manufacturing companies, are expected to be involved in delivering the technology. Training on operations of high-speed rail will be facilitated by Japanese experts.

To meet tech requirements, it is expected that the products will initially be manufactured in Japan and then brought to India, while local companies are expected to play a role in India-level requirements such as fitting the tracks. Going forward, Japanese companies may even consider setting up manufacturing facilities for bullet trains in India. This would give an impetus to the 'Make in India' initiative.

The high-speed rail project can spur growth and create many employment opportunities, with up to 20,000 construction jobs, 4,000 direct employment for operations, and 20,000 indirect jobs. More than 80% of the project is funded by Japan through a loan at 0.1% per annum for a period of 50 years. With speeds over 300-kph, this project is likely to bring about a paradigm shift for the Indian Railways. In fact, there are six more high-speed rail corridors in the offing.

Such rail projects have been implemented in more than 20 countries, including China, Japan, South Korea, the UK and France. India has the fourth-largest rail network in the world after the US, China and Russia. This, combined with growing population, a significant section of which depends on the Indian Railways for public transport, makes India a lucrative investment market for high-speed rail.

High-speed rail has several economic benefits, but there are challenges, too, including land acquisition, which need to be addressed by the government on an urgent basis. As of now, only 40% of the required land has been acquired. A strong economic partnership, buttressed by the high-speed rail network, between India and Japan will prove beneficial for both the economies in an uncertain global environment.

NATIONAL MILK DAY

Why milk industry must introspect

Dairy industry must address challenges related to quality, productivity, process upgrade, supply chain and innovation

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INDIANS WERE THE first people who domesticated cows and knew about milk, as early as 2000 BC, as evident from information published by the International Dairy Federation, Brussels, whereas cow was domesticated for milk in the Europe only after 500 AD. This international reference from a European-based world's apex dairy association is necessitated here as there would be no dearth of western-influenced indigenous intellectuals and historians with over-scientific bent of mind who would question any reference from our own ancient Indian texts such as the *Vedas*, *Bhagavad Gita* or *Ramayana*. Not only India's traditional knowledge on milk and milk production is unparalleled in the world, our consumption habits as well are.

India traditionally had the practice of boiling milk before drinking, both for health safety and enhancing its shelf life. On the other hand, milk had been consumed as chilled in the West. It was only in 1862 that the French microbiologist Louis Pasteur invented pasteurisation both to preserve milk and make it safe for human consumption, as it destroys pathogens, especially mycobacterium tuberculosis. The packing of milk in bottles was started in 1884 in New York by Dr Hervey D Thatcher. Interestingly, people in China and many South East Asian countries were not aware of milk till the last century, and the Chinese are characterised by the highest percentage of lactose intolerance.

From a net importer of dairy products a few decades ago, India has a come a long way to become the world's largest milk producing country, with over 186 million metric tonnes of milk. India, the second most populous country in the world, is also the largest market of milk in the world, dwarfing the milk demand in any other market in the world. Today, India has reached to being fully (100%) self-sufficient in milk production. The credit goes to the country's ambitious Operation Flood programme under the stewardship of Dr Verghese Kurien, and the ingenious institutional mechanism it created by way of milk cooperatives across the country.

Moreover, India is credited to provide up to 70-80% of the consumer price to dairy farmers compared with merely 25% in Australia, 33% in New Zealand and 30-40% in most parts of Europe. Interestingly, 77% of milk production in India comes from small, marginal and landless farmers. India has about 100 million farmers dependent on dairy, compared to merely 10,000 in New Zealand and 6,300 in Australia. Thus, the socio-economic impact of dairy sector is much more pronounced in India compared with any other major milk exporting country, leading to its far-reaching political repercussions.

Today, milk surplus countries such as New Zealand and Australia—which are compelled to find markets for their 93% and 25% of milk production, respectively, due to limited domestic consumption—besides a host of European nations and the US as well, are leaving no stone unturned to enter India's vast dairy market.

Economic liberalisation under WTO trade regime and the quest to enter into one or the other FTAs—wherein duty-free and unrestrained access to foreign dairy players under current circumstances is granted—has created considerable pressure on the Indian milk industry and the government alike. Governments, both central and states, are under compulsion to reduce and revamp the very structure and mechanism of subsidies and the assistance provided, which is not very palatable to beneficiaries such as farmer organisations, cooperatives and industry.

However, the unobstructed entry of foreign dairy players under current circumstances would not only be disastrous for the Indian dairy industry, but also cost the livelihood of about 100 million farmers, and this is a matter of serious concern.

Interestingly, politicians in India are remarkably wittier and innovative in their approach and decision-making, compared to the bureaucracy that is unwilling to make use of its prudence and demonstrate courage to take firm decisions. This has been demonstrated at several occasions by Prime Minister Narendra Modi, such as while pulling out of the RCEP (Regional Comprehensive Economic Partnership) to safeguard the interests of Indian industry and farmers, especially the poor and marginal milkmen and women. This also demonstrates the collapse of institutional mechanism of multilateral trade negotiations to assess the issues concerning the earnings of about 100 million marginal and poor dairymen whose important source of livelihood is milk.

Since long, India has been evading economic liberalisation in dairy trade, but it is not going be sustainable in the times to come. It is time the Indian dairy industry, both cooperatives and the private sector, does some introspection into the issues hampering India's competitiveness in the international market, and also addresses challenges related to productivity, quality, process upgrade, integrated supply chain and logistics, innovation, marketing and generic promotion of 'Made in India' dairy products internationally. The government, on its part, needs to develop sensitivity to the issues related to farmers, cooperatives and industry for sustenance and growth of the dairy sector.