Post-Covid 19 India: The National Education Policy and India's Higher Education Trajectory

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1. Unpredicted Crisis, Unpredictable Outcomes, and the Unasked Questions

"Why did no one see it coming?" the Queen had asked a disarmingly blunt question to the LSE economists. The queen's bewilderment was not about the pandemic, the unpredicted COVID-19 which has affected the entire world since the end of 2019, but an earlier crisis of a relatively smaller spread and less deadly outcomes, that of the 2007-08 global economic recession. Both these issues are the topics of today's conference on Post-COVID India.

"Sorry Ma'am — we just didn't see it coming", the eminent group of LSE economists could only honestly apologize for failing to predict the financial crisis.¹

The Queen or for that matter anyone else would not have perhaps asked a similar *ex ante* question about the much bigger crisis, the COVID-19 pandemic, as to why no one saw it coming.² Obviously, this is because the pandemic was unpredictable by its very nature of origin.

¹ They were later quoted to have written a letter saying, "In summary, your majesty, the failure to foresee the timing, extent and severity of the crisis and to head it off, while it had many causes, was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole." https://www.nbcnews.com/id/wbna32156155 (accessed on 22.09.2022).

²According to WHO coronavirus (COVID-19) dashboard. 2022 cited by James D. Ford et al in Lancet (2022), https://covid19.who.int/ (accessed December 12, 2022), the pandemic has reached momentous proportions, affecting even ...the most remote areas of the world, Globally, as of 9 December 2022, there have been 643,875,406 confirmed cumulative cases of COVID-19, including 6,630,082 deaths, reported to WHO. As of 4 December 2022, a total of 12,998,974,878 vaccine doses have been administered worldwide.

The same, however, is not true about asking an *ex post facto* question as to what has been, or would be done for the future of our post-COVID-19 society – for those sectors of the economy, which are affected by the pandemic. The UNESCO, the UNICEF and the World Bank have jointly asked such questions to decipher the global response of the education sector to the pandemic. They conducted a survey in 2020³ focused on national responses of country governments to COVID-19 *school closures at pre-primary to secondary education*.

At the higher education level, the UNESCO conducted another survey of UNITWIN/UNESCO Chair Holders Institutional Responses to COVID-19 in April 2020⁴, including one from India⁵, which mainly assessed the impact of COVID-19 on higher education institutions (HEIs) in terms of

- remote learning strategies and platforms,
- admissions,
- assessments,
- research activities,
- networking and
- student support.

This survey, providing an evidence-based overview of the situation of the higher education system at national and global levels, was then addressed to 193 Member States and 11 Associate Members for response. Sixty-seven countries submitted responses, 57 of which were used for the UNESCO analysis to assess the impact of the pandemic on the higher education system in terms of

- access to education,
- equity and quality of teaching and learning,
- university operations,
- national challenges,
- emerging issues and strategic responses.

Whereas India had emerged more or less unscathed by the economic crisis of 2007-8, it was among the worst hit countries in the global south by COVID-19.⁶ Coming up after the approval and release of India's new *National Education Policy 2020* approved by the Ministry of Human Resource Development, Government of India amidst the pandemic on 29 July 2020, the UNESCO survey was available online between 15 December 2020 and 12 February 2021. However, India was not among the sixty-seven country governments that responded to it. Nor had India's NEP

³UNESCO, UNICEF and the World Bank (2020a, 2020b). https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2020/10/National-Education-Responses-to-COVID-19-WEB-final_EN.pdf

⁴ UNESCO (2020a). The survey covered 234 responses in 222 institutions in 67 countries. See also, COVID-19: reopening and reimagining universities, survey on higher education through the UNESCO National Commissions https://unesdoc.unesco.org/ark:/48223/pf0000378174

⁵ Ramakrishna Mission Vivekananda Educational and Research Institute, run by Ramakrishna Mission to actualize educational vision of Swami Vivekananda is a deemed university, at Belur Math, Howrah, Kolkata, West Bengal.

⁶ As of 9 December 2022 (https://covid19.who.int/ (accessed December 12, 2022), India with 44,674,439 cumulative cases stands next to the USA with 98,072,469, although the number of deaths in India (530,653) are half of the USA's 1,074,367.

2020 have any mention of the ongoing pandemic, or of the preventive and curative measures that India took at an unprecedented scale for containing it.⁷

While official statistical information thus remained limited on India, UNESCO collected information through desk research and analysed it by simulation on one important variable, i.e., **dropouts** caused by COVID-19 <u>in180 countries including India</u>.⁸ According to this inter-regional study (unfortunately not presented country-wise) published in July 2020, i.e., the same month and year as India's NEP 2020 was, higher education students in South Asia (which predominantly includes India) and West Asia are at maximum risk of not returning to their institutions. This is because at university level, students are often dependent on part-time jobs and/or their parents' income, the latter being significant in India. With the economic impact of the pandemic and the consequent loss of family incomes and employment, higher education students have been finding it difficult to continue their education.

The massive loss of life and livelihood – workers dying or being fired from jobs – have deprived families from end-of-service compensation caused by what the UN has recognized as "wage theft".⁹ In-between the two, there have also been invisible loss of incomes through curtailment in the number of hours of work per day/ per week in various countries of the world as shown in Map 1. India happens to be on the higher side in this loss but this too has remained an unasked question. It is an unasked question whether such effects of COVID-19 would be short-lived or be continuing in the longer run.

⁷ These measures included lockdown, masking and social distancing, dialysis, oxygen distribution and a widespread vaccination programme.

⁸ UNESCO (2020b, p.5.) projections, covering 180 countries and territories, estimate that about **24 million students** (from pre-primary to tertiary education) will be at risk of not returning to education institutions in 2020, including care centres, schools, universities or other training institutions, of which 10.9 million are in primary and secondary levels. 11.2 million are girls and young women, with 5.2 million of them being primary and secondary school students. The 10.9 million in primary and secondary levels is in addition to the 258 million children and youth of this age who were already out of school prior to the crisis. <u>Tertiary education is affected the most, with an estimated 3.5%</u> <u>decline in enrolment, resulting in 7.9 million fewer students.</u> This is followed by pre-primary education with an estimated 2.8% decline in enrolments, corresponding to 5 million children. <u>Primary and secondary education are likely to be relatively less affected.</u> The largest share of learners at risk of not returning to school are found in **South and West Asia** (5.9 million) and **sub-Saharan Africa** (5.3 million).

⁹ This acknowledgment was a result of the consistent demand by Migrant Forum of Asia (MFA) for global recognition of the term coined and proposed by it.

Map 1: COVID-19 Effects: Working hours lost around the world and G20 countries in 2020 relative to the fourth quarter of 2019 (percentage)



Source: ILO Modelled estimates, a. Working-hour losses (ILO modelled estimates) (%) – ILOSTAT Database. Cited in Verick, S. (2021), "The Labour Market Effects of the COVID-19 Crisis Over 2020-21: Uneven Impact Followed by an Unequal Recovery", *Labour & Development* (Journal of the V. V. Giri National Labour Institute), Vol. 28, No. 2, December, pp 6-24

India's NEP 2020 may be said to have been specifically geared towards dealing with the formation (on the supply side) and utilization (on the demand side) of one of the most precious and what I have called the sixth "global common", viz., the Human Capital.¹⁰ It is the product of higher education systems – the high value-added, high positive-externality emanating professionals like engineers, IT experts, managers, corporate entrepreneurs, lawyers, teachers, and now, above all, doctors, nurses and vaccine scientists in the immediate to short run. Demographically, COVID-19 could be seen to have adversely affected both these sides by taking a toll on six generations of human capital in three diverse but overlapping ways –

- (i) by taking *life*: of the Baby Boomers I (born 1946-1954) and Baby Boomers II (born 1955-1964);
- (ii) by taking away *livelihoods*: of Gen X (born 1965-1980) and the Millennials or Gen Y (born1981-1996); and

¹⁰ See, Khadria (2012) for the proposal to recognize Human Capital as the sixth global common, an addition to the existing five, viz., the High Oceans, Atmosphere, Outer Space, Antarctica and the Internet.

(iii) by adversely affecting **education:** of Gen Z (born 1997-2012) as students in the higher and secondary schooling, at the same time influencing the primary education of Gen Alfa (children born after 2012).

The core of these effects lay in the extreme urgency of distancing person from person to break the chain of inter-generational (e.g., teacher-student) and intra-generational (e.g., student-student) spread of infection. *This is where the world experienced an unprecedented surge in the role of digitization and emergence of remote contact through online communication, work-from-home, virtual interaction and a whole lot of activities under a new vocabulary.* Coming as a saving grace, it proliferated like wildfire through mushrooming of online platforms like zoom, webex, google and so on.

The pandemic is a daunting challenge to the UN Sustainable Development Goals¹¹ (SDG 2030), with widespread implications for health, education and economic development, all three related to "the total factor productivity", or here, its part, the "average productivity of labour". A dip in this human productivity caused by the pandemic would rollback the progress made in achieving Goal 3 on Health and, in the context of the present paper, Goal 4 on Education, and slow down future economic progress. Within the latter, to understand and critically anticipate the trajectory of India's National Education Policy (NEP) and Higher Education in the post-COVID 19 India, one first needs to discern at what scale the pandemic has affected and will continue to affect the *demographics and employment* of the various generations of stakeholders in higher education mentioned earlier:

First and foremost among them are the STUDENTS in the age-group 18 to 24, i.e., Generation Z comprising 12.7% of 1.407 billion – i.e., 140.7 crore population in 2021.

Next are the TEACHERS and PARENTS/GUARDIANS in the older age-groups in Gen X and Y from among those aged 25-59 comprising 45.9% of 1.407 billion population in 2021.

Finally, the ADMINISTRATORS AND POLICY MAKERS among the Baby Boomers I and II from among those aged 25-64 comprising 49.4% of 1.407 billion population.¹²

India's first Census of the 21st Century was carried out in 2001. It had revealed what we all know by the so-called catchphrase "demographic dividend" to be in the offing, lasting at least half a century until 2050. This dividend is embedded in the employment of the world's youngest workforce that India has been projected to have. What has not been spelled out properly though is that the advantage of demographic dividend would be arising from three things happening together (Khadria 2009a):

- the lower average age of the population giving a better dependency ratio;
- the lower wages-bill due to lower wages of the younger workforce and hence lower costs of production of goods and services that India would produce and export competitively to the world; and

¹¹The Lancet COVID-19 Commissioners, Task Force Chairs, and Commission Secretariat. Lancet COVID-19 Commission Statement on the occasion of the 75th session of the UN General Assembly. Lancet 2020; 396: 1102–24. https://pubmed.ncbi.nlm.nih.gov/32941825/

¹² United Nations Population Division (2022).

• the advantage arising from the fact that frontier scientific knowledge of the latest vintages would be embodied in the younger and younger generations of higher education students, thus leading to continuous application of most cost-effective and environment-friendly latest technologies.

This triple-advantage is what deconstructs India's so-called demographic dividend. **The unasked question** then is how India's higher education policy is going to counter the COVID-19 effects that are likely to make a dent on achievement of this triple advantage.

2. Variables Impacting Higher Education Scenario in India through the COVID Years

Before addressing the unasked questions, let us first look at a few facets of the existing higher education scenario in India. Figure 1 shows rates of population growth, GDP growth and inflation during the pre-Covid and in-Covid years whereas Table 1 presents absolute values of related variables including COVID- deaths.

Figure 1:



Population Growth Rate
 Source: Author, based on Table 1



VEAD	Dopulation	Cumulativa	Dopulation	CDD	CDD	CDD	Inflation
IEAK	Fopulation	Cumulative	Fopulation	GDF	GDF	GDF	mination
	(billion)	COVID-19	Growth Rate	(Billion	Growth	Per Capita	Rate
		Deaths	(%)	US\$)	Rate	in US\$	(annual
		(July)			(%)		%)
2018	1.369	NA	1.09	2,703	6.45	2.017	3.94
<mark>2019</mark>	<mark>1.383</mark>	19 (Mar'20)	<mark>1.03</mark>	<mark>2,832</mark>	<mark>3.74</mark>	<mark>2,036</mark>	<mark>3.73</mark>
2020	1.396	31,358	<mark>0.96</mark>	<mark>2,668</mark>	<mark>-6.60</mark>	2,111	<mark>6.62</mark>
2021	1.407	414,482	<mark>0.80</mark>	3,173	+8.95	<mark>1,968</mark>	<mark>5.13</mark>
2022	1.417	525,930	<mark>0.68</mark>	<mark>2,980</mark> e	<mark>-1.</mark> 40	2,318	<mark>7.41</mark>
							-

'e' implies estimated. <u>Yellow:</u> COVID year. <u>Green:</u> Favouable change. <u>Purple:</u> Adverse change. Sources: United Nations (2022), World Population Prospects, Online Edition, Department of Economic and Social Affairs, New York (for population); WHO data (for COVID-19 deaths); World Bank Data (for GDP); CMIE data (for inflation). Figure 2 and Table 2 present the unemployment levels vis-à-vis inflation rates.



Source: Author, based on Table 2

Table 2:India's Unemployment, Youth Unemployment and Inflation vis-à-vis 2019 as Base Year(2018 – 2022)

(2010 - 2022)							
YEAR	UNEMPL-	Annual	Change over	YOUTH	Annual	Change over	ANNUAL
	OYMENT	Change	2019 (i.e.,	UNEMPLOY	Change	2019 (i.e.,	INFLATION
	RATE	Percentage	vis-à-vis Pre-	-MENT	Percentage	vis-à-vis Pre-	RATE (%)
	%	Point	COVID-19	RATE %	Point	COVID-19	
			Lockdown)	(Age 15-24)		Lockdown)	
2018	5.33	-0.03	not applicable	23.05	0.47	not applicable	3.94
2019 (Base	<mark>5.27</mark>	<mark>-0.06</mark>	Ref Base	<mark>22.74</mark>	<mark>-0.31</mark>	Ref Base	<mark>3.73</mark> 🚛
<mark>year)</mark>							•
2020	<mark>8.00</mark>	<mark>2.73</mark>	+ <mark>2.73</mark>	<mark>24.90</mark>	<mark>+2.16</mark>	<mark>+2.47</mark>	<mark>6.62</mark> 🛧
2021	<mark>5.98</mark>	-2.02	<mark>+0.71</mark>	<mark>28.26</mark>	<mark>+3.36</mark>	<mark>+5.83</mark>	<mark>5.13</mark> 🕁
		(misnomer)	(actual)		(misnomer)	(actual)	
2022	<mark>8.30</mark>	<mark>+2.32</mark>	<mark>+2.26</mark>	<mark>34.00</mark>	<mark>+5.74</mark>	<mark>+11.57</mark>	<mark>7.41</mark> 🏠
(Aug)							-

Yellow: COVID year. Green: Favourable change. Purple: Adverse change. Sources: Author's calculation based on CMIE data.

Figures 3, 4 and Table 3 provide a number of indicators on participation in different levels of education.



Source: Author, based on Table 3.

Figure 4: Pupil-Teacher Ratio in Primary, Secondary and Higher Education, 2018-2022



Source: Author, based on Table 3.

 Table 3:

 GER (Ref NEP Target: 50% by 2035), GPI and PTR in Higher Education vis-à-vis Secondary & Primary Education

Year	Higher Education				Secondary Education			Primary Education			
	GER		GPI		PTR	GER	GPI	PTR	GER	GPI	PTR
		Gen	SC	ST							
2018	25.8	0.97	0.96	0.87	29	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2019	26.3	1.00	1.02	0.92	26	76.9	1.0	20.6	101.3	1.01	27.7
2020	27.1	1.01	1.05	0.97	26	77.9	1.0	18.5	102.7	1.02	26.5
2021	n.a.	n.a.	n.a.	n.a.	n.a.	79.8	0.9	18.4	103.3	1.02	26.3
2022	n.a.	n.a.	n.a.	n.a.	n.a.	79.6	1.0	17.6	103.4	1.03	26.2

Sources: GOI, Ministry of Education: (i) AISHE 2019-20; (ii) Higher Education Profile 2019-20; (iii) Unified District Information System for Education Plus (USIDE+) 2021-22 and previous annual issues till 2018-19.

Figure 5 and Table 4 present the cumulative numbers of universities by type.



Source: Author, based on Table 4.

Table 4:					
Pre-COVID Number of Major Universities in India, 2016 - 2020					

Туре	Number of Universities						
	2015-16	2016-17	2017-18	2018-19	2019-20		
State Public	329	345	351	371	386		
University							
State Private	197	233	262	304	327		
University							
Deemed University-	79	79	80	80	80		
Private							
Institute of National	75	100	101	127	135		
Importance							
Central University	43	44	45	46	48		
Deemed University-	32	33	33	34	36		
Government							
TOTAL	755	834	872	962	1012		

Source: AISHE 2019-20.

Figure 6 and Table 5 present the comparative budget expenditures in defense, health and education.

Figure 6: Comparative Budget Expenditures in Defense, Health and Education sectors, 2019-23, in Rupees Crore



Source: Author, based on Table 5.

Table 5: Comparative Budgeted Expenditure in Various Sectors (Ref NEP Target: 6% of GDP), Rupees Crore, 2019-23

	TOTAL	Defense	Health	Education	Higher Edn	School Edn
2019-20	27,86,349	3,05,296	63,830	94,854	38,317	56,537
2020-21	30,42,230	3,23,053	67,484	99,312	39,466	59,846
2021-22	34,83,236	3,68,418	74,602	88,002	38,351	54,000
2022-23	39,44,909	3,85,370	86,606	1,04,278	40,828	63,449
				(approx.		
				3% of		
				GDP)		

Sources: Union Budgets 2019-20 to 2022-23.

Looking at variations in these indicators of the Indian situation in the context of the COVID-19 effects in autarchy¹³, there is a primary unasked question that needs addressing: Whether there is a necessity for the government of India to revisit the NEP 2020 on its own merit, incorporate changes and alter priorities for staying on the expected trajectory in the foreseeable post-COVID future?

¹³ i.e., not from the stereotype of an internationally comparative fact that no Indian university or institution of higher education figures in the first 300 rankings worldwide in 2022, etc.

Among the contemporary policy-related global documents, what the UN-Migration's biennial World Migration Report (WMR) 2020¹⁴ by the IOM missed, the WMR 2022¹⁵ has already incorporated by revisiting the new normal as of end-2021. Similarly, the UN Climate Change Annual Report 2020 had acknowledged the urgency of changing the assumed parameters and the Annual Report 2021 has already dedicated a separate chapter (Chapter 2) to COVID-19 effects on the environment.¹⁶ What about the NEP 2020 - whether it would have a newer Programme of Action (POA) type document to follow in the short run, given the fact that India's last policy framed some 34 years ago in 1986 was followed up by such a document in 1992? Prior to 1986, the reference point for 18 years was the 1968 policy based on the Recommendations of the Kothari Commission (1964-1966).¹⁷ The unasked question is: haven't the two very long interim period(s) subjected these policies to the vagaries of a 20-year long Kuznet's business cycle and a 40-yearvery-long Kondratiev business cycle respectively, turning them obsolete with no built-in stabilisers as time passed by? Historically speaking, the trajectory of higher education through two education policies of independent India's is known to have treaded with a continuing colonial legacy structured on the British model until the National Education Policy 2020 (NEP 2020) claimed to have proposed overhauling it for the first time. The two predecessor policies were given short shrifts by one government after the other, most remarkably in not respecting the goal of reaching the celebrated 6% mark of GDP being allocated to education, now barely above 3%. The actual phasing out of the existing British colonial trajectory by the NEP 2020 may be said to have been delayed by two years due to the disruptions created by the COVID-19 pandemic.¹⁸ Before addressing how much of the NEP 2020 still remains relevant or adequate enough to handle the higher education challenges in post-Covid 19 India and asking if sufficient efforts would be made to reorient it to the new normal, let's first look at the highlights of the NEP 2020.¹⁹

3. A Discursive Commentary on the Highlights of India's National Education Policy 2020

The Government of India claims to have initiated an unprecedented collaborative, inclusive, and highly participatory consultation process from January 2015.²⁰ On 29th July 2020, the Union Cabinet chaired by the Prime Minister approved the National Education Policy 2020.

¹⁹ GOI (2020), MHRD.

¹⁴ IOM (2019).

¹⁵ IOM (2021).

¹⁶ UNFCC (2022).

¹⁷ It has only been referred to in the passing in NEP2020 without an acknowledgement that it was India's first National Education Policy.

¹⁸ This may be seen as symbolically coinciding with the demise of the queen of England, Queen Elizabeth II, recently after her long 70 years' reign as the British monarch.

²⁰ NEP 2020 is said to have been formulated after an unprecedented process of consultation that involved over 200,000 suggestions from 250,000 Gram Panchayats (village administrative units), 6,600 Blocks, 6,000 Urban Local Bodies like municipality, and 676 Districts. In May 2016, the 'Committee for Evolution of the New Education Policy' under the Chairmanship of Late T.S.R. Subramanian, Former Cabinet Secretary, submitted its report. Based on this, the Ministry prepared 'Some Inputs for the Draft National Education Policy, 2016'. In June 2017, a 'Committee for the Draft National Education Policy' was constituted under the Chairmanship of eminent scientist Dr. K. Kasturirangan, which submitted the Draft National Education Policy, 2019 to the Hon'ble Human Resource Development Minister on 31st May, 2019. The Draft National Education Policy 2019 was uploaded on MHRD's website and at 'MyGov Innovate' portal eliciting views/suggestions/comments of stakeholders, including the public. https://pib.gov.in/PressReleseDetail.aspx?PRID=1642061

The new policy aims to pave the way for transformational reforms in school and higher education systems in the country. For issues relating to higher education²¹, it has the following features, each one contextualized to dealing with the post-Covid effects by this study:

- Gross Enrolment Ratio in higher education to be raised to 50% by 2035 by adding 3.5 crore (35 million) seats.
 - This would have implications for access, increasing the promised GER to make it more inclusive.
- Making Under-Graduate education broad-based, multi-disciplinary and holistic with flexible curricula, creative combinations of subjects, integration of vocational education and multiple entry and exit points with appropriate certification. UG education can be of 3 or 4 years with multiple exit options and appropriate certification within this period.
 - This would address exclusion and provide avenue for re-enrolment after a gap due to covid-19 exigencies.
- Establishing Academic Bank of Credits to facilitate Transfer of Credits across space and time. - This would introduce locational and inter-temporal mobility in post pandemic era.
- Setting up Multidisciplinary Education and Research Universities (MERUs), at par with IITs, IIMs, and as models of best multidisciplinary education of global standards in the country.
 - This would help create holistic consciousness across streams of arts/humanities/science/technology/management education so as to avoid overexploitation of mother earth and its climate.
- Creating a National Research Foundation to foster a strong research culture and build research capacity across higher education.
 - This would facilitate necessary pandemic and other crisis related research
- Setting up a Higher Education Commission of India (HECI) as a single overarching umbrella body for the entire higher education, excluding medical and legal education. It will have four independent verticals National Higher Education Regulatory Council (NHERC) for regulation, General Education Council (GEC) for standard setting, Higher Education Grants

• The current 10+2 system to be replaced by a new 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 years respectively. This will bring the hitherto uncovered age group of 3-6 years under school curriculum, which has been recognized globally as the crucial stage for development of mental faculties of a child. The new system will have 12 years of schooling with three years of Anganwadi/ pre- schooling.

²¹ For school education, which has both forward and backward linkages with higher education (See, Khadria 1989) on the forward and backward linkages between schooling and higher education), the NEP 2020 has the following provisions:

[•] New Policy aims for universalization of education from pre-school to secondary level with 100 % Gross Enrolment Ratio (GER) in school education by 2030.

[•] NEP 2020 will bring 2 crore out-of-school children back into the main stream through open schooling system.

[•] Emphasis on Foundational Literacy and Numeracy, no rigid separation between academic streams, extracurricular, vocational streams in schools; Vocational Education to start from Class 6 with Internships.

[•] Teaching up to at least Grade 5 to be in mother tongue/ regional language. No language will be imposed on any student.

[•] Assessment reforms with 360 degree Holistic Progress Card, tracking Student Progress for achieving Learning Outcomes

[•] A new and comprehensive National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT. By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree.

Council (HEGC) for funding, and National Accreditation Council (NAC) for accreditation. These bodies will apply the same set of norms for public and private higher education institutions.

- This would will make it easier for public-private-participation (PPP) in higher education.
- Phasing out affiliating colleges in 15 years and gradually granting them graded autonomy as Autonomous degree-granting College, or a constituent college of a university.
 - This would better integrate decision-making at the undergraduate level with the post-graduate education as well as employment of teachers.
- An autonomous body, the National Educational Technology Forum (NETF), will be created to provide a platform for the free exchange of ideas on the use of technology to enhance learning, assessment, planning, and administration.
 - This would be crucial for a balanced digitization of processes and data, records and governance in higher education institutions vis-à-vis limited digitization of teaching-learning, thought process etc.
- Setting up of a Gender Inclusion Fund, and a Special Education Zones for disadvantaged regions and groups.
 - This would be important for gender-specific delivery of gender-parity in non-specific areas.
- Promoting Multilingualism in both schools and higher education. National Institute for Pali, Persian and Prakrit, Indian Institute of Translation and Interpretation to be set up.
 - This would promote localization but needs to be treated with care so as to avoid breakdown of inter-regional communication and creation of disparities.
- The Centre and the States will work together to increase the public investment in Education sector to reach the long-promised 6% of GDP at the earliest.
 - This could be the first step towards multi-level federalism and to dissuade states from acting as sovereign entities like they did during and post-Covid mobilities.

Whereas the central trajectory of the NEP2020 with all these features is geared towards removing **dead-ends** and introducing flexibility for the student beneficiaries – through creating avenues for **temporary stops**, **re-routing**, **U-turns** etc. to make new beginnings, the primary challenge is that of **doing away with the baggage of pre-existing conditions** in Indian higher education elaborated in the following section.

4. The Academics' Critique of Pre-existing Conditions Ailing Higher Education in India

The Indian Higher education system happens to be the third largest in the world with more than 1,040 universities and 39,800 colleges as per the Government of India data presented in the Annual Survey of Higher Education, which is still not available beyond 2019-20. A total of 3500 engineering colleges, 3400 polytechnics, and 200 design and architecture schools exist in India.²² Among engineering colleges, Indian Institutes of Technology (IITs) are known the world over. There are more than 600 medical colleges and 5000 nursing institutions.²³ The first modern

²² See All India Council for Technical Education (AICTE) data.

²³ As per Medical Council of India (MCI) and Indian Nursing Council (INC) data

university was established in India in 1857 at Calcutta and in the same year, two more universities, University of Bombay and University of Madras, were established.²⁴ These universities have been seen as transplants in British India, mainly set up to suit the needs and demands of the colonial rulers. This, it is believed, led to fading and near extinction of a highly developed indigenous educational system in India. The objective was not to produce and distribute knowledge²⁵ for innovators but to create sets of graduates suited to seeking jobs and serve the "manpower needs" of the colonial government. However, it defined the nature and character of higher education trajectory in India, which continues even today. Meanwhile, the number of universities grew and by 1947, when the country became independent, it rose from three to 20 universities. By 2020, the number grew exponentially with every passing decade and year, a few appearing in global rankings. The All India Survey of Higher Education (AISHE) by MHRD, GOI provides five-yearly data on higher education up to 2020.²⁶

The question is: Is this enough for the world's second most populated country to tap the so-called demographic dividend it is enjoying in the 21st century, with a majority of youth in the working age group of 24-35? Soon after the NEP 2020 was adopted, the Association of Indian Universities, the autonomous government think tank came out with an edited volume, *Reimagining Indian Universities*²⁷ containing the collective wisdom of leading academia of the country on what ails the university education in India.

In terms of the Gross Enrollment Ratio (GER) in higher education, the country stands at about 27.1 per cent, which the AIU reminds us is

- (a) far lower than the GER for most developed countries and
- (b) less than the average GER in most developing countries.

With the target of a GER of 50 by 2035 in NEP 2020, there is still a huge deficit in the number of higher education institutions. Now, the Indian universities are seen to be grappling with five challenges of Enrolment, Excellence, Equity, Employability and Entrepreneurship. Enrolment, Excellence and Equity are a massive *demographic challenge* of access to higher education in India as there are gross inequities of rural-urban, rich-poor, and the so-called upper castes versus the socially and economically challenged classes of population. On the other hand, Employability and Entrepreneurship pose big *challenge of employment* for all groups.

It is important to examine whether the New Education Policy envisioning a complete overhaul and re-energizing of the higher education system will address these two challenges rooted in *demographics* and *employment* in the post-COVID-19 India. The COVID disruption without a follow up policy and/or action has revealed many a *contradiction* between the policy of higher education *de jure* and its trajectory in implementation *de facto*. The policy envisions "an education system rooted in Indian ethos in providing high-quality education to all, and thereby making India

²⁴ See, Nurullah and Naik (1951).

 $https://books.google.co.in/books/about/A_History_of_Education_in_India_During_t.html?id=WKicAAAAMAAJ\&redir_esc=y$

²⁵ See, Machlup (1962).

²⁶ These data are also available from the Annual Reports of the University Grants Commission (UGC).

²⁷ This will however be after "having complied with a series of regulatory exercises" that are 'light but tight'.

a global knowledge superpower". This is part of the dream to transform India from a low-middle income country to a middle, higher and then a superpower county. Great emphasis has been laid in the policy on equipping the students with what it calls "21st century skills". As highlighted above, the policy stresses upon having multi-disciplinary universities and colleges – public as well as private – in every district by 2030, each with 3000 students. The universities will continue with research as well as postgraduate and undergraduate teaching, some research intensive and others teaching intensive, and colleges largely teaching at the undergraduate level. There will be provision for medium of instruction in local/Indian languages or bilingual. Holistic focus on multi-disciplinary education crosscutting arts and humanities would equip students with skills and sensitivity in pursuing careers of their choice. Students will have enhanced freedom through multiple entry and exit options at the undergraduate level. Academic credit banks will store credits to provide transferability across institutions.

Higher education institutions are promised independence and self-governance with substantial autonomy for faculty. This is not only non-evident so far but reversals of existing independence and autonomy in the name of accountability have been enforced on select universities and institutions to coincide with the COVID times.²⁸ Moreover, for other public institutions, this will be likely to come at the cost of reduction in public funding and more reliance on self-financing through privatization and user-cost tuition fees.²⁹ A National Research Foundation (NRF) has been proposed to promote and monitor Research in universities. "The spelled out vision of the policy is to instill among the learners a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global well-being, thereby reflecting attributes of a true global citizen," the NEP2020 says. However, as these lofty ideals are being shortchanged by imposition of particular values and ideology stifling free thought and open discussion, it is apprehended that the NEP 2020 would accomplish a lot of window dressing for the global audience and little of upholding the provisions of the Constitution to which it has often referred.

Thus, there seems to be a contradiction between the new policy aiming at progressive changes in the Indian higher education system and the present approach of governance to accomplish them. One of the major concerns expressed by many contributors in the AIU volume is about Indian universities not figuring in the top global university rankings.³⁰ Successful two-way internationalization would require improving both the **academic and the infrastructural resources** in the universities, it says. Competing for international students would also necessitate **simplified visa regime, smooth entry and exit rules, user-friendly international hostels, up to date curricula of world standard, and much more**. This is how China has already become a destination "hub" for international students from across the world, whereas India remains and now consciously plans to remain a "hinterland" to send students and increasing number of youth skilled in vocational streams duly incorporated in higher education, rather than nurturing frontier

²⁸ See, various press coverages and media reports.

²⁹ For contradictions in such shifts and withdrawal of public funding and subsidies, see Khadria (1989).

³⁰ The volume is overwhelming with conglomeration of the ideas of some of the greatest minds in the country, mostly Vice Chancellors and other eminent educators with similar ranks who are either former or presently serving in Indian universities. Little did it imagine that the world would have to make such a sudden somersault with an onslaught of the COVID-19 pandemic, with multifarious consequences for higher education in India.

knowledge in frontier areas like STEM, AI etc. and facilitating their employment within the country.³¹

Even without being driven by the COVID-19 disruptions and challenges, major preexisting roadblocks ailing India's higher education, as per the contributors in the volume, have been too many: "Outdated and rigid curricula; large numbers of vacant (and declining) faculty positions; poor quality of faculty in terms of both commitment and competence, poor systemic enablers for student mobility; near absence of a culture of research; minimal and poor research work; a flawed and rigid system of examination; poor methods of teaching and learning; low levels of skill development among students resulting in low employability; dominance of vested interests; inadequate provision and poor management of educational services; and problems in governance" (Mittal and Pani 2020, p. x). These issues and a lack of accountability for the top administrators and arbitrarily/out of turn appointed officials in decision-making positions in higher education institutions have taken a great toll on the atmosphere and morale for pursuing quality higher education and research in India.³² This is notwithstanding the fact that the problem is not as much of resources as it is of deliberate undermining of democratic principles and practices laid down in the Constitution of the country. This has happened with more frequency through 2018-22, covering the COVID-19 period, in those universities that have ranked high in the NIRF ratings, e.g., in those listed in Table 6.

Table 6:

Governance of Higher Education: Erosion of Academic Freedom and Autonomy in Five Public and One Private University listed among Top 100 Ranks in NIRF 2022

Rank	University
2	Jawaharlal Nehru University
3	Jamia Millia Islamia
4	Jadavpur University
10	Hyderabad University
11	Aligarh Muslim University
88	Ashoka University (private)

Source: National Institutional Ranking Framework, Ministry of Education, Government of India, India Rankings 2022: Universities. Available at: https://www.nirfindia.org/2022/UniversityRanking.html (visited 02 Dec 2022).

Autonomy and accountability are two complementary building blocks for ensuring good governance in higher education institutions – the first, to be provided to the higher education institutions and the stakeholders therein and the second inculcated by the stakeholders themselves from within. Putting them the other way round in professional management, governance models short on transparency, equity, accountability and inclusiveness will do more harm than good and

³¹ See Khadria (2020) on the concepts of 'hubs' and 'hinterlands' of migration.

³²Appointment of VCs by applications (with snowballing effects downwards) rather than nominations/ Training through programmes like the Leadership for Academicians Programme (LEAP) for educational leadership under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Scheme is undermining the status and independence of top university administrative positions.

breed inefficient systems. There is, therefore, an overwhelming consensus on the view that universities and other higher education institutions should be led by academicians who have, besides general leadership skills and managerial competence, high academic credentials, courage and self-esteem to stand their ground against authoritarianism or resign³³.

5. A Matrix to Deconstruct the Effects of COVID-19-driven Digitalization in India's Higher Education

There are no systematic data on the effects of COVID-19 on higher education in any country, not to speak of India. Even the 2021 decennial Census of population in India did not take place, and the MHRD data of All India Survey on Higher Education (AISHE) are available only up to 2019-20. As a second best option, the following effects of COVID-19 on higher education derived from the perspectives of sixty seven countries' responses to UNITWIN/UNESCO survey can be reclassified in terms of a matrix for anticipating similar effects on higher education in India³⁴:

- 1) *Mode of teaching and learning:* Major impact of COVID-19 on teaching and learning is the **increase in digitalization for online education**. The hybrid-teaching mode is the most popular form.
- 2) *Access:* Impact of COVID-19 on enrolment varies by region and income level. Through government funding and an increase in domestic enrolment, the high-income countries and those in Europe and North America are better able to cope with the disruption.
- 3) *International mobility:* Mobility has suffered a major setback, affecting international students significantly, but virtual mobility through digitalization could compensate or even replace physical mobility.
- 4) *University staff:* Despite the closure of many universities, the impact of COVID-19 on university staff compared to the previous academic year is limited.

³³ These are beyond training programmes like Leadership for Academicians Programme (LEAP) aimed at training future leaders like Vice Chancellors, who were earlier appointed by nomination and invitation, and not through inviting applications and holding interviews for selection.

³⁴ https://unesdoc.unesco.org/ark:/48223/pf0000378174

To quote "COVID-19: reopening and reimagining universities, survey on higher education through the UNESCO National Commissions":

[&]quot;After unprecedented growth in higher education in the last few decades, the education of more than 220 million tertiary students was suddenly disrupted in 2020 by university closures due to COVID-19. Currently, most universities around the world are preparing for a safe and effective learning environment by altering their normal schedules and organization at the institutional and national levels. However, due to the uncertainty and rapidly changing situation of the pandemic, only limited data on the current situation at the global level are available.

The report demonstrated the major shift in the mode of delivery from in-person to remote teaching and learning at HEIs around the world, as well as the various challenges and opportunities it presents.

Following these reports, the key findings also highlight the rapid digitalization of education and the challenges presented by the shift in the mode of teaching and learning."

- 5) *Disruption of research and extension activities:* COVID-19 has caused the suspension and cancellation of teaching and research activities globally.
- 6) *Widening inequality:* Mixed impact of the pandemic on university finance has shed light on the exacerbation of inequality in higher education. Financial support from government and external sources are crucial to the survival of HEIs.
- 7) *University operations:* Strong impact of the pandemic on HEI operations has caused reduced campus maintenance, services, and campus closures worldwide.
- 8) *National challenges:* Health and adaptation to new modes of teaching are the primary concerns for students and institutions.
- 9) Transition from higher education to work: Significant reduction in job opportunities makes the transition from higher education to the labour market more difficult. Employers are seeking applicants with advanced technology skills in a fast digitalizing system.
- 10) *National priority changes:* Among the strategic options in country-specific responses, to overcome the challenges caused by the pandemic, most responding countries reported a need to *improve the infrastructure and availability of digital devices for online and distance learning*. There is a significant need for support to help adjust to new virtual modes of teaching and learning, specifically the need for *teacher training in online and distance learning, and for guidelines, tools and online teaching and learning materials*.

In addition, at the global level, 35 countries out of 67 reported that more international collaboration in research and policy dialogue was required for universities to overcome the challenges caused by the pandemic.

These effects of COVID-19 on higher education globally are often discussed in public discourse through the print and electronic media as well as the social media like Facebook, twitter, WhatsApp groups, etc.³⁵ but not so much in engaging with the policy circles of the bureaucracy and politicians in India. These may be usefully turned into "unasked questions" for assessing the immediate/ short-run and long-term implications the pandemic is having on higher education and its stakeholders in India.

Now, to answer who are the stakeholders – students, parents, teachers are the three central, actively participating stakeholders whereas administrators and policy makers are peripheral, non-participating ones.³⁶ For the participating stakeholders, apart from the complete withdrawal or *dropout* due to (i) 3Ds - Death, Disability and Debility, partial withdrawal due to COVID-19

³⁵ Brookings (2022) Report.

³⁶ See, Majumdar (1983) on the social choice dilemma facing the students, teachers, parents and the state as the stakeholder agencies of investment in education.

measures of (ii) Lockdown and (iii) Social Distancing can be visualized through a 3 x 3 matrix vis-à-vis the three major processes of higher education³⁷, viz., Classroom teaching-learning, Examinations for assessment, and Admissions for new entrants as presented in Table 7 below:

Table 7: Matrix of the Post-COVID-19 Digitalization Measures: Three-stage Process of Higher Education vis-à-vis Three Participating Stakeholders Necessary Condition: Device (Smartphone/Computer), Electricity, Internet Connectivity Sufficient Condition: Participation/ Involvement of

Stakeholder	Students & Research	Teachers	Parents
Process	Scholars		
Classroom Exchange	Online /Digital	Online /Digital	<i>Offline</i> /Digital
Immediate Effect (everyday)	Attendance biometrics	Attendance biometrics	Helpless confusion
Examination &	Online /Digital	Online /Hybrid	Hybrid/Digital
Evaluation			
	WhatsApp	MCQ conundrum	Helpless confusion
Short-run Effect	manipulation		
(intermittent/multiple)			
Admission	Online /Digital	Online/Hybrid	Online/Digital
Long-run Effect (one-time)	CUET dysfunction	MCQ conundrum	Helpless confusion

Source: Author.

6. India's Digital Divide Compounding the COVID-19 Effects on Higher Education

Following the World Health Organization's declaration of the Coronavirus outbreak as a pandemic on 11 March 2020, the Indian Prime Minister in a flash declaration imposed a complete *"lockdown"* on 24 March 2020 and enforced *"social distancing"*, citing the rise in COVID-19 positive cases, thus bringing almost every area of public life to a halt. One of the most affected areas due to COVID-19-induced measures has been the education sector and its five agencies as narrated below.³⁸

Students:

Close to 320 million (i.e., 32 crore) students in India have been affected due to the pandemic and many have been *forced to adapt to e-learning as an alternative*. With large-scale

 ³⁷ A highly disaggregated and detailed understanding of these processes being affected in varying degrees is available in the UNESCO Survey of its Chairs in 67 countries referred to earlier.
 ³⁸See, Ladegaam (2021).

disparities in socio-economic status, substantial number of students faced difficulties adjusting to rapidly digitalizing education.

The digital divide in India has severely affected students from marginalized communities and rural areas.³⁹ According to the Telecom Regulatory Authority of India (TRAI), there has been a rise in the number of wireless subscribers in India over the past five years, evenly distributed across rural and urban areas. However, online classes and e-learning re-widened this gap, as they required more than just telecommunication.

A smartphone with steady internet access is the basic requirement and some courses necessitate access to computers and other devices, where the urban-rural disparity makes a determining difference. As per the 75th round of the National Sample Survey⁴⁰ conducted between July 2017 and June 2018, only 4.4 rural families had a computer, against 14.4 per cent in urban regions, with as low as 14.9 per cent of rural families accessing the Internet against 42% of families in urban areas. The Fifth National Family and Health Survey (2019-21)⁴¹ showed that there was a huge gap in individual internet usage levels and accessibility between rural and urban areas. This gap is further complicated by the gender divide as women in both urban and rural areas have lower levels of internet accessibility than men. As smartphones became the source of learning for many, other disparities like connectivity issues, handset model and available features made a huge difference.

Apart from issues of accessibility, they also faced issues like *lack of learning environment*, *dissociation from peers, burn out, low levels of retention, unavailability of resources and many more*. For many students who also engage in household and other economic activities, it became *difficult for them to devote time to online classes or finish their academic tasks with punctuality*. It has been reported that India had one of the *highest dropout rates* of students due to COVID-19.

Students from public colleges/ universities and low-income private colleges were more affected than the students from private universities. The public institutions had additional responsibilities concerning the well-being of students given their limited infrastructure that many private institutions did not.⁴² The shift to online mode in private universities was therefore quicker compared to public universities. Many private colleges had their staff already trained in and accustomed to the online mode of teaching. As students in these institutions mostly came from urban and middle to high-income backgrounds, accessibility was less of a problem for them.

Research Scholars:

One of the most important aspects of higher education in India is *research*. A lot of research is dependent on the academic institutions and the infrastructure provided by them to the research

³⁹ For everyday dichotomies between technological knowledge endowment and technological transformation of society affecting Mr. Mits ("man in the street") a la Majumdar, see Majumdar (1989).

⁴⁰ GOI (2020), Ministry of Statistics and Programme Implementation.

⁴¹ GOI (2022), Ministry of Health and family Welfare.

⁴² Rishabh Chaudhary, a student at the University of Hyderabad researching in the area of students and e-learning concluded from his preliminary results that private university students had less trouble moving to an online mode of learning while students from public universities and other low-income colleges faced a lot of difficulties.

scholars.⁴³ Another issue is that research also requires *access to the library, repositories, online journals and stable internet access*. Data collection, interviews and other important parts of the research process were also difficult to carry out in lockdown. This led to delays and stagnation of the work of many research scholars. Many universities managed to give extensions to scholars from older batches but students from newer batches are still uncertain about their extension.

All these issues have severely affected the *quality of research in India to submit their work on time*. "Many research scholars manage to sustain with the monetary help they get from the government and universities in the form of fellowships but *due to administrative holdups and other issues during the lockdown, they weren't paid their stipend on time*," said Devina.⁴⁴ This not only severely affected the research scholars from marginalized communities and low-income families, but also vitiated the atmosphere for peaceful research by those from well to do backgrounds.

Teachers:

Many universities took cognizance of the difficulties faced by *teachers* in adapting to teaching online and conducted orientation programs for them. However, as the *shift was very quick*, many teachers continued to face troubles while using online teaching platforms. Teaching was also difficult due to the lack of interaction and uncertainty in terms of retention by students, which was lower than in physical classes.⁴⁵ A collaborative project on media education in India during the pandemic by Dr. Usha Raman and Devina Sarwatay of the University of Hyderabad found that *students who had to pivot to online classes in the middle of their course had difficulties adjusting to e-learning while students who began their classes completely online adjusted well.*⁴⁶ Students enrolled in courses requiring practicals and laboratory access faced heavy learning loss during the pandemic. With a large number of students enrolled in STEM courses, this could also result in pushing students from marginalized social and economic backgrounds away from STEM education, leading to loss for the country.

Mental Health:

Online mode of learning has had severe effects on the *mental health of students*. Alongside accessibility issues, many faced difficulties in attending classes due to various family issues. **Oxfam India** reported that the lockdown period saw a sharp rise in *domestic violence* cases. Many

⁴³ "For science students and many social science students, the centers, labs set up in the universities provide them with an environment to do research. Many of master's programs in the country lack the research component. Many students enrolled in M Phil or PhD programs are actually doing the research for the first time. So if you do not have that environment, it becomes even more difficult," said Devina Sarawatay, PhD student at the Department of Communication, University of Hyderabad.

⁴⁴ In some universities, like Jawaharlal Nehru University, this led to violent student unrest culminating into political factionalism and call for resignation of the Rector.

⁴⁵ Dushyant, who is pursuing masters in International Relations at Jawaharlal Nehru University, said that his primary discontent with the online mode says that it fails to augment the classroom experience. "As a result, the learning experience is very casual. The virtual space negates the possibility of an important aspect of higher education—learning outside the classroom. This has hampered the learning process, big time. A part of the scholar inside me has been killed, and I'm not lying," he added.

⁴⁶ "This could be due to the fact that the newly enrolled students were well aware of the pandemic situation and the need for online classes while the senior students were taken aback by the sudden interruption and change in their mode of learning," said Devina.

students, particularly *queer students and women* use their university/college residential campuses as a form of escape from abusive homes and find necessary support in their peers or inclusive groups on campus. Lockdown resulted in closing down campuses, leading these students back to toxic home environments.⁴⁷ They also shared how things were looking up post lockdown.⁴⁸ Students battled severe *stress related to deadlines and examinations*. Physical classes offered students opportunities to *study in groups and help each other out* with assignments and exam preparations, which was not feasible with online classes. This led to anxieties and stress while working on academic tasks. Students who had pre-existing physical and mental health conditions were among the most affected groups due to digital learning.⁴⁹ They went on to explain how the lack of physical environment affected their coping mechanisms.⁵⁰ Continuous usage of the internet and smartphones caused *digital burnout among students*, which resulted in a lack of motivation to study or finish the scheduled tasks.⁵¹

Deferred Placements:

As a number of important *entrance examinations* were postponed or cancelled, students spent the lockdown period in uncertainty about their employment. Similarly, graduating students faced *difficulties in finding jobs due to the lack of placements on campus* and the unavailability of job opportunities outside. Students also faced issues finding academic internships necessary for

⁴⁷ A student from the University of Hyderabad, who wished to remain anonymous said, "Those of us who come from dysfunctional families have a hard time adjusting to home. In addition, that also adds to our inability to study or retain information no matter what our teachers want to do to make things accessible for us. That's how I lost an entire semester. I don't think I'll get it back so I don't think of it but I wish I could have dealt with my dysfunctional family and mental health issues and done a bit better in my studies. I felt as if everything was slipping away and I didn't even have the mental peace to think about what I wanna do in the future."

⁴⁸ "I have come out of home and I'm able to think a little bit, listen to audio lectures, talk to my friends and partner overcalls more freely. So it's better when I'm away from home after the lockdown because it was a hell of a time adjusting and I realized that no matter what I do I can't change anything about home but I can take care of myself away from there."

⁴⁹ Meghana, who is a student of MA Development Studies at TISS Hyderabad said, "I have ADHD and amblyopia (a neuro-visual disability) and a lot of my problems during the online semester, learning online are related to ADHD and neuro-visual disability and are magnified by lack of accommodations/institutional mechanisms in the university spaces. Although I've been blessed to have many professors who understood my (our) situation and pushed themselves to help me in whatever way they can, I found it dehumanizing to write emails to each of them about my ADHD and how it plays out."

⁵⁰ "A huge part of ADHD is also having a lot of shame associated with not fitting into educational institutions, for years. I realized that in the absence of accessibility or accommodations, even as much as an acknowledgment of ADHD or neuro divergence, I evolved certain coping mechanisms. These coping mechanisms were embedded in the physical environment of the college. And suddenly when it wasn't in reach anymore, I saw the fragility of these coping mechanisms. They fell apart and I sometimes did not know how to function." Meghana then discussed the shame or embarrassment associated with asking professors for an extension of deadlines. "I just feel like there was a lot of shame writing to the professors each time I needed an accommodation or an extended deadline. There is no institutional mechanism where I could rely on a procedure that could grant a few accommodations. I had to do this a lot more than before and writing to a professor each time I needed an extension was extremely tedious," they added.

⁵¹ Sai Gangothri, a psychology student from Osmania University said that she had noticed a huge increase in her smartphone usage during the lockdown. "I am not someone who uses social media a lot. But due to lockdown, I had to stay connected with my friends. Online classes also needed me to stay updated on classwork online. Due to this, I was using my phone way more than I did before. Most of the time, it felt like I needed a break from it due to burnout," she said.

their course.⁵² Another biggest area of uncertainty was finishing of projects for masters students. *The Indian government has been pushing the institutions across the country to adopt digital teaching and learning methods owing to the pandemic. However, this push only lay bare the systemic inequalities faced by students in India.* It is high time there is an intervention by the government to actually equip all students with required resources to enable digital learning before claiming to have begun a digital revolution.

7. Re-emergence of Brain Drain Confronting the Country's Higher Education: The Silent Backlash on Productive Employment and Workforce Demographics

In the wake of COVID-19, on April 23, 2020, the US president, as authorised under Section 212 (f) of the 1952 Immigration and Nationality Act, signed an executive order to block the entry of categories of people deemed 'detrimental' to the country's interests. The US order apparently prioritized SDG 8, which states: 'Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. To protect American citizens from foreign competition for American jobs, the US order banned, for an initial period of 60 days, the filing and processing of new green card applications for immigrating into the US as legal permanent residents. Notably, however, the US order exempted foreign doctors, nurses, researchers, other healthcare workers, and their dependents from the ban. The Indian Human Resources for Health (HRH), the "COVID-warriors" labouring to save human lives in India were the immediate beneficiaries of this order — of unrestricted access to health-sector employment in the US. In the post-COVID-19 period therefore, this would trigger a choice-distortion in the higher education as well as the job markets (employment) in India, particularly because as a major country of origin of migrant workers in the global south, India supplies a large workforce of medical professionals, students and trainees to other countries.

With promulgation in the largest destination country of migrant professionals in the global north, the legislation highlighted the grim reality of global imbalance in the supply of skilled professionals, particularly in times of urgent need. There are several long-standing factors behind this imbalance such as the *limited number of educational and training institutions, long gestation periods to create competencies and a shift in occupational hierarchies and career choices that favour corporate managerial jobs over HRH professions.* One important reason that is likely to become a major cause of this disparity would be the *growing segregation of factor-utilization from factor-endowment of precious human capital.*⁵³ Now, in the post COVID-19 regime, I suspect this would over-ride the ethical recruitment principle of the WHO and rekindle brain drain as an important conflict of interest between India as the origin country and the destination countries. This would be more pronounced particularly for STEM professionals and students (in Science,

⁵² Varun, who graduated from IIT Madras right at the time of the lockdown said, "As soon as educational institutions were closing down, our college prioritised graduating students & informed us of the plan ahead. Exams, reviews, presentations, all were fast-tracked and the syllabus was cut down for some courses." He said that they couldn't believe it was all happening so fast. "Although our placement session was over by the time, some of my friends had their offers rescinded. They felt betrayed," he added.

⁵³ See, Khadria (2006b, 2010).

Technology, Engineering and Mathematics fields)⁵⁴, including HRH in curative services and the scientists inventing the vaccines for preventive services.

Apart from COVID-19 deaths (mortality), disability and debility (morbidity), what needs to be accounted for is the overwhelming change in international migration caused by lockdowns, *travel restrictions and high selectivity of skills brought in through unilateral introduction of high volatility in the visa regimes of the destination countries*. These changes would be reflected in the *emerging global skill gaps*, having implications for skill formation and/or acquisition through policies for health (including mental health) and higher education as well as the high-skilled international migration regimes. *These must be geared towards improving the average productivity of labour per hour per employed person in purchasing power parity dollars (US\$PPP)*, particularly in the "Emerging" member countries of the G-20 on the lower side of the spectrum and India, paradoxically, at the lowest spot (Table 8).

Table 8:

Pre-COVID-19 Average productivity of labour per hour per employed person in G20 countries (PPP\$), 2019

(Per-hour contribution of each employed worker to the respective Gross Domestic Product)

Advanced	Countries	Emerging Countries		
USA	76	Argentina	31	
France	75	Russia	29	
Germany	74	Mexico	22	
Saudi Arabia	61	South Africa	21	
Australia	60	Brazil	18	
Italy	60	China	14	
United Kingdom	59	Indonesia	13	
Canada	58	India	9	
Japan	47			
Turkey	47			
South Korea	43			

Source: Khadria, B. (2022), "Did catchy slogans and future commitments in the IMRF reflect poor implementation of the GCM?", International Workshop on *The Present and Future of the Global Compacts*, organized by Canada Excellence Research Centre, Toronto Metropolitan University, June 7, 2022.

What explains this chasm? One major reason for this divide in the average productivity of labour is the large-scale emigration of the high-skilled high-productivity "best and the brightest" of highly educated professionals to the advanced economies of the Global North from the developing countries of the Global South including India, better known as the brain drain to developed countries.⁵⁵ It is ironical that the highest average productivity in the US is the contribution of the Indian Diaspora to the GDP of the US, and the average productivity of their

⁵⁴ See, Khadria (2020b).

⁵⁵ There is also the mass exodus of the hard-working high-productivity low and medium skilled workers to the Middleeast including Saudi Arabia, leaving the origin countries with unemployed and unemployable youths stretching their studentship for higher education. Ironically, their carry-home disposable income is unstable and further cut down by the phenomenon of "wage-theft", which showed its ugly face in the COVID-19 triggered lay-offs and return home.

left-behind workers in India and their average contribution to India's GDP is the lowest in the world. This highlights the three prime determinants of skill gaps – birth rates (fertility), death rates (mortality) and net migration rates (immigration minus emigration) – the three shaping the Age Structural Transformation (AST) in the demographic structure of the countries. *The developed "advanced" economies within G20 have lower birth and death rates but higher net immigration whereas the developing "emerging" economies, primarily India, have higher birth and death rates and high net emigration (or negative immigration) rates. Figure 7 depicts this change in working age population over 2015 to 2050.*





Cited in OECD (2017), *Future of Work and Skills*, Organisation for Economic Cooperation and Development, Paris.p.5

8. Contradictions of A Short Shrift to Human Capital in India's Longer Term Holistic Economic Overhaul

The Economic Survey 2020-21 (GOI, MOF 2021), presented by the government to the Parliament in February 2021 after a year of the lockdown of the economy and prior to proposing the budget for 2021-22 stated in its Preface that it was "an ardent tribute to the immortal human spirit of grit and compassion encapsulated by the tireless battle against the pandemic by our *frontline COVID-19 warriors* (emphasis added). ... The foresight of our collective vision to battle this pandemic became evident when policy insights and implementation at the Centre, State and local level converged to initiate a V-shaped economic recovery. *[A]fter experiencing a sharp contraction of 23.9% in first quarter of 2020-21, India is expected to be the fastest growing economy in the next two years*. ..."

The next and the latest Economic Survey 2021-22 (GOI, MOF 2022) presented by the government of India to the Parliament in February 2022 as a preface to the 2022-23 budget, admittedly "written under the continuing cloud of the Covid-19 pandemic", was however not so overtly optimistic but more realistic. It emphasized, "It is not just about the *immediate disruptions* and uncertainty caused by repeated waves of the pandemic, but also the longer-term uncertainty about the post-Covid world due to accelerated shifts in technology, consumer behaviour, supplychains, geo-politics, climate change and a host of other factors. Not only are these individual factors difficult to forecast, the impact of their interactions are fundamentally unpredictable. The theme of this Economic Survey, therefore, relates to the art and science of policymaking under conditions of extreme uncertainty (emphasis added). The default mode of policy-making in India and most of the world has traditionally been to rely on a pre-determined 'Waterfall' approach 56 – an upfront analysis of the issue, detailed planning and finally meticulous implementation. This is the framework that underpins five-year plans and rigid urban master plans. The problem is that the real world is a complex and unpredictable place buffeted by all kinds of random shocks and unintended consequences. "This Economic Survey sets out to explain the alternative 'Agile' approach that informed India's economic response to the Covid-19 shock.⁵⁷ The Agile framework is particularly relevant today because of the explosion of real-time data that allows for constant monitoring. Such information includes GST collections, digital payments, satellite photographs, electricity production, cargo movements, internal/external trade, infrastructure roll-out, delivery of various schemes, mobility indicators, to name just a few." It is strange that education and particularly higher education that had created and supplied the human capital, the Covid-warriers to whom the 2020-21 economic survey is dedicated as a tribute, did not find a mention in this list, not to speak of making updated data beyond 2020 available.

The Economic Survey continues, "some of the data are available from public platforms but many innovative forms of data are now being generated by the private sector. Short-term policy responses, therefore, can be tailored to an evolving situation rather than what a model may have predicted. The same recognition of uncertainty informs the longer-term supply-side strategy: the combination of policies that encourage economic flexibility through innovation, entrepreneurship and risk-taking on one hand, and simultaneously invests in resilient infrastructure, social safetynets and macro-economic buffers on the other." Thus, it is hoped that readers will be able to see the links between seemingly disparate policies ranging from deregulation, process simplification, privatization, foreign exchange reserves accumulation, inflation-targeting, housing-for all, green technology, the Insolvency and Bankruptcy Code, health insurance for the poor, financial inclusion, infrastructure spending, direct benefit transfers and so on. They are all about protection from or taking advantage of an uncertain future."

How about any of these in higher education policy making? It remains an unasked question, even in health and environment apart from education in general. The implications are visible in

⁵⁶ The Waterfall methodology — also known as the Waterfall model — is a sequential development process that flows like a waterfall through all phases of a project (analysis, design, development, and testing, for example), with each phase completely wrapping up before the next phase begins.

⁵⁷ This framework is based on feedback loops, real-time monitoring of actual outcomes, flexible responses, safety-net buffers and so on. Agile planning is a project management style with an incremental, iterative approach. Instead of using in an in-depth plan from the start of the project—which is typically product related—Agile leaves room for requirement changes throughout and relies on constant feedback from end users.

the stark discrepancy (i) between economic/business visa-a-vis health/education, and (ii) between science/technology and health/education within infrastructure in India's world ranking of competitiveness variables among 63 countries in the graph below.

Figure 8:

India's Health and Education Infrastructure Competitiveness in a 63-Country Ranking, 2022



Among 20 indicators spread across four categories of economic landscape in Figure 8 above, India ranks below half (32) the total number of 63 country rankings in 10 indicators, including at rank 59 in education, just above the last four, and above the very last one in health and environment at 62^{nd} rank.

9. The Ghost of Super Accountability *sans* Autonomy: The Potential Achilles Heel in India's Post-COVID-19 Trajectory of Higher Education?

India's pride is its Constitution. Spread across the small sixty-six-page policy document, the NEP 2020 has referred to the "Constitution of India" and "constitutional values" or "constitutional provisions" some nineteen times. The document reminds the readers about the country being a pioneer in creating knowledge systems and universities. It has claimed that the first university in the world was in India, established at Takshashila in the year 6 BC. The knowledge systems of India in the form of Vedas and Upanishads being traced back to as early as 1800 BC and 800 BC respectively are also flagged. It has been said that the versatility and perpetual significance of Indian knowledge systems make them relevant for ever.⁵⁸ It would be highly useful in this context to address an unasked question as to what proportion of the royal coffers (GDP) of those times were invested in education and higher education on how many students (GER) and teachers (PTR). The answers would be difficult subjects of historical research

⁵⁸ Mittal and Pani (2020)

throwing meaningful light in conceding the fact that the policy makers in government after government have not even been able to commit to the long-standing target of spending 6 percent of GDP on education. In higher education, it has remained less than even 1 percent of the GDP, a primary cause of non-private higher education institutions and universities perpetually remaining fund starved and therefore short on academic and administrative autonomy, which is progressively being curtailed in the name of accountability.

The post-COVID Economic Survey of 2020-21 reported only 3.5% of GDP or Rs. 6.75 lakh crore as the combined Centre and State expenditure on education.⁵⁹ Even then, there has not been a single attempt so far to look at the financial relationship between GDP and the Education Sector in some alternative way - say in terms of a reverse measure of how much the Education Sector contributes to the GDP of the aspiring 5-trillion economy.⁶⁰ This alternative perspective can be highlighted by digitalizing the data on measures of how the brain drain of our STEM students in Science, Technology, Engineering and Mathematics – themselves the foundations of any digitalizing economy - leads to a potential dip in the country's GDP, and how measures can be taken to prevent it.

The Indian students in the STEM fields have been migrating abroad, especially to the US, for higher qualifications like Masters, PhDs and postdoctoral research, after completing their bachelors or master's degrees in India. Subsequently, when 60% to 80% of them, as per the US NSF data, entered the foreign labor market, it led to loss of not only their skills but also of foreign exchange, both leading to reduction in education's contribution to India's GDP – a concretely quantifiable evidence of brain drain from India. According to the MEA reply to Question No 964 in Rajya Sabha on 26 July 2018, the estimated number of Indian students abroad until then was 753 thousand. In contrast, the number of foreign students in India in 2018-19 was only 47,427 as per the MHRD data of 2019. As per Table 9 below, Indian student numbers abroad declined in 2020 due to COVID-19, but picked up again in 2021 as receiving countries are making all out efforts to revive and retain the inflow of international students.

matan Stadents Horoad					
Year	Number of students				
2019	5,86,337				
2020	2,59,655				
2021	4,44,553				
2022 (until 20.03.2022)	1,33,135				

Table 9:Indian Students Abroad

Source: Ministry of External Affairs, GOI, 2022.

Table 10 and Figure 9 below show five-yearly distribution of Indian students in five prime destination countries between 2007 and 2022.

⁵⁹ See chapter 10, pp.326-327 and Table 1 in Economic Survey 2020-21 Vol.II (GOI, MOF 2021)

⁶⁰ Khadria, Thakur and Asraf (2016); Khadria and Thakur (2020)

Student Mobility from India to Top Six Destinations, 2007-2022							
	2007	2012	2017	2022			
USA							
	94,563	96,754	206,708	211,930			
Canada							
	7,304	28,929	100,000	215,720			
UK		not					
	25,905	available	14,830	55,465			
Australia							
	27,078	12,629	63,283	92,383			
Germany							
	3,431	5,745	13,740	20,810			
NZ							
	3,855	11,349	30,000	30,000			

Table 10:

Sources: International Institute of Education (IIE) Open Doors for the US; UK Higher Education Statistics Agency; Australia Education International; Citizenship and Immigration Canada; New Zealand Ministry of Education; and DAAD/HIS (Germany).

Figure 9: Emigration of Higher Education Students from India to Five Developed Countries, 2007-2022



Source: Author, based on Table 10.

Two noticeable aspects of this growth in numbers are: (i) the number of Indian students abroad is much higher than number of foreign students in India, and (ii) a majority 45 percent of foreign students in India in 2018-19 belonged to neighbouring poorer countries Nepal, Afghanistan, Bangladesh, and Bhutan within the top-seven countries' share of 55 percent, many on India's own funding through the Indian Council of Cultural Relations (ICCR).⁶¹ The higher numbers of Indian students abroad have led to a loss of foreign exchange in the outflow of studentfees and other expenses associated with outmigration of students, not compensated by the inbound foreign students in India, leading to what Khadria calls India's "silent backwash flow of remittances".⁶² Both India and developed countries like the United States – aspiring and dominant knowledge economies of the 21st century – are trying to maintain their comparative advantage through nurturing talent in STEM fields. In the case of the US, this is reflected in its high demand for STEM students⁶³ - reflected in higher shares of Indian students in these fields of study in the US higher education system: In 2017-18, as high as 79 percent of all Indian students in the US were in the STEM fields, substantially higher than 45 percent of the Chinese students.⁶⁴ These higher shares in the STEM fields in the US higher education system, comprising the outflows of Indian students, would lead to a lower GDP of India because a majority of them were not coming back to contribute to the economic growth and development in the country through use of knowledge gained in the US education system, but retained by the host countries. In fact, they were "recruited" as future workers, many through the so-called "international education fairs" rather than being "enrolled" as students in the first place.⁶⁵

However, there are possibilities of reversing this by adopting three policy measures aimed at attaining the Sustainable Development Goals: (i) Boosting the average productivity of labour in India through engaging the returning Indian STEM students graduating abroad in the reduction of rural and urban poverty, promotion of employment-intensive technologies and overall upliftment of the socio-economic standard of living through better education and improved health⁶⁶; (ii) Creating homogeneity in the STEM courses and degrees between foreign and Indian educational institutions for balancing the two-way migratory flow of STEM students in the framework of GATS⁶⁷ and (iii) Creating four higher education hubs in India to leverage not only geographical but also diversified socio-cultural-ethnic affinities in the four regions of east, west, south and north India that can employ and enroll the aspiring Indian STEM youth in teaching and learning at home rather than abroad. All three measures would help realize and consolidate the full potential contribution that the Indian Higher Education Sector makes to the country's GDP, and free it from the false image of being a parasite on the subsidies funded by the taxpayers' money and hence subjected to the ghost of super accountability.⁶⁸ An Index of Service Production (ISP) in the

⁶¹ See Khadria (2011) on the geopolitics of overseas scholarship grants in higher education.

⁶² India Migration Report 2009.

⁶³ Khadria, et al (2022).

⁶⁴ "Indians represent the second largest cohort of international students in OECD countries", *The Indian Express*, 18 Oct., 2022. https://indianexpress.com/article/education/study-abroad/indians-represent-the-second-largest-cohort-of-international-students-in-the-oecd-countries-8213096/ visited 28 Dec., 2022.

⁶⁵ I have elsewhere called it a Freudian slip, as the real intention is not to spread education but to optimize future employment. See, Khadria (2009).

 ⁶⁶ See, Khadria and Kumar (2015) on the same effect by investing in human capital of the illegal immigrants in India.
 ⁶⁷ Khadria (2010).

⁶⁸ "If education is expensive, try ignorance"!

Education Sector, and particularly an index of quality of higher education based on teacher-pupil ratio (rather than the conventional pupil-teacher ratio) that we constructed at the instance of the Ministry of Statistics and Programme Implementation (MOSPI)⁶⁹ would help in measuring the changes in this contribution in quantifiable terms year upon year. This would support a convincing evidence-based claim of the Education Sector for higher allocation - not in nominal but real term - in the union as well as the state budgets if we needed to achieve SDG no. 4 of ensuring inclusive and equitable quality education for all. This could be ensured not only in the basic levels of elementary and secondary education by 2030, but also in higher education, including in STEM fields, and further to stem the brain drain to the developed countries by making college and university teaching an attractive job market by emulating good practices of countries like Germany, USA, and lately China.

All this would call for first restoring and protecting the autonomy of higher education stakeholders – the students, teachers and administrators in higher education institutions in India - its potential Achilles Heel, which has been the target of suspicion and mistrust by the government, the media and sections of the public at large throughout the COVID-19 period. What is required at home is to minimize the trust-deficit and maximize mutual trust-building. India'a leadership of the G-20 in 2023 would then be an opportunity to be leveraged for attaining this as a goal not only for the country but also for the group as whole. This would be the contribution India can make to a global partnership in the field of higher education and its policy trajectories. Going by the signals coming from initial talks among the G-20 Sherpas as reported in the media⁷⁰, the priorities as of now seem focused more on the immediate-run negotiations over digitalization in food, fuel and finance in the wake of COVID-19 exigencies and the Ukraine war. They also need to prioritize similar partnerships in longer-term sustainable investments of trust, time and funds that would be the potential catalysts for innovations in higher education in the country and their lasting effects on the labour markets in the way forward in post-COVID India.

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⁶⁹ Khadria, Thakur and Asraf (2016).

⁷⁰ "G20 Sherpa meet: A presidency with a show of culture and clear-cut agenda", *The Indian Express*, 11 Dec., 2022 https://indianexpress.com/article/explained/g20-sherpa-meet-significance-explained-8316646/ Visted on 28 Dec 2022

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