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ECONOMIC & POLITICAL WEEKLY

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Demerits of the Lockdown

India's lockdown has affected a mammoth percentage of interstate migrant labourers, especially from Uttar Pradesh and Bihar who are befuddled in this state of adversity. These workers constitute the major portion of the informal workforce in our country. With the declaration of the relief package for the poor, the government's decision has somehow missed the nation's most affected and vulnerable group of people in this crucial stage of maintaining "social distancing" and keeping oneself in the "state of isolation." Indiscriminately imposed inter-state movement restrictions have resulted in the starvation of this underprivileged group of people. Not providing any shelter to the poorest of the poor can lead to the crumbling of the very credentials of democracy if these migrant workers are inadequately represented without any means and ways of protection.

Public health in India is a subject matter of the states. Shortage of food will lead to the deterioration of the health conditions of the citizens. In spite of the fact that India is an original signatory of the Universal Declaration of Human Rights (UDHR), we lack cooperation to tackle essential human needs. It will be an immense injustice to our people's faith if we dilute its hallmark enshrined under the Right to life (Article 21) of the Constitution. Not only this, there are also provisions under the Directive Principles of State Policy (DPSP) that claim that the state shall direct its policy in such a manner as to secure the rights of all men and women to an adequate means of livelihood (Article 39), and it is

also a duty of the state to raise the level of nutrition and the standard of living, and to improve public health (Article 47). But, so far, we have not emphasised the sanctity of this enough. The Supreme Court has explicitly laid down its significance in the case of *Jijubhai Nanbhai Khachar v State of Gujarat* (1995) by stating that fundamental rights (Part 3) and DPSP (Part 4) of the Constitution are the two wheels of the chariot as an aid to make social and economic democracy a truism. The policymakers must realise that the ongoing distress of India's health sector is very disproportionately represented when compared with other developing nations of the world. Flattening the curve with weak safety nets can expose the deep fault lines of the system. This is a wake-up call for us to pursue the creation of reliable research platforms and the enhancement of medical advancement to address the ongoing crisis.

A continuing proliferation of COVID-19 cases without any blueprint of dealing with them will only aggravate the health crisis in India. There is a need for greater collaboration between the government and the people to fight against this deadly disease. Officials at the top should abide by the Prime Minister's message of *Jaan hai to jahan hai* (If you have life, you have the world) to win the war against COVID-19. The transmission of the virus can be curbed only when we start doing enough tests and quarantine our citizens to manage and control the infected population. This requires effective implementation of strategies along with people's solidarity. And, it is possible only when the responsible government works for all the sections of society,

EPW Index

An author-title index for EPW has been prepared for the years from 1968 to 2012. The PDFs of the Index have been uploaded, year-wise, on the EPW website. Visitors can download the Index for all the years from the site. (The Index for a few years is yet to be prepared and will be uploaded when ready.)

EPW would like to acknowledge the help of the staff of the library of the Indira Gandhi Institute of Development Research, Mumbai, in preparing the index under a project supported by the RD Tata Trust.

irrespective of their caste or class. The sooner we realise this, the better would the rate of recovery be.

Rajesh Raj

BUXAR

Economy's Immunity against COVID-19

This is in response to the editorial "Economics, Prudence, and a Pandemic" (*EPW*, 21 March 2020).

The novel coronavirus, popularly known as COVID-19, has crossed all borders in a very short period of time and has spared no continent except Antarctica. Some countries are affected more severely than others, with China, Iran, and Italy being the worst affected of all and a few more, including Spain, have also joined them. Traditionally, the spread of infectious diseases was seen in abundance among the poor and people living in vulnerable conditions. However, many of the people who tested positive for COVID-19 are largely celebrities, athletes, politicians and white-collar professionals across the globe and those who have a foreign travel history. The economic impact of COVID-19 on the world economy can be examined from the demand side as well as from the supply side. However, considering the statistics concerning the number of positive cases and deaths in different regions across the globe, the additional factors of uncertainty and threat are also added. With various advanced countries using fiscal measures and quantitative easing in order to limit the impact of the predicted recession, we would expect to see unprecedented shifts in aggregate demand and supply parameters, with upward pressure on prices of goods and services in general and of healthcare services in particular.

Lockdowns result in the forced closure of production facilities, resulting in a shrinkage in supply. Hotels and tourism are the worst affected industries, which will have a knock-on effect on allied industries such as processed food, beverages, and transport. In the context of the present COVID-19 pandemic, the problem is compounded for certain commodities like masks, sanitisers, hand

soaps, antibiotics, etc, and medical and paramedical services. There is an increase in demand on the one hand, and on the other hand, there is an extreme shortage of supply despite the manufacturing units for these goods and medical service facilities operating at 100% or more of their capacities. Another fallout of lockdowns is that their announcement results in panic, causing the prices of essential food, groceries and other necessities to escalate.

The people worst affected by the pandemic are the daily wage earners and ad hoc employees, especially the unskilled workers belonging to the informal and gig economy. These are most likely to be the people living below or close to the poverty line. A negative shock like COVID-19 would push them to extreme poverty. These people do not constitute a significant share of private demand, but they do depend on the public healthcare system when requiring care as inpatients. Those in regular permanent employment would continue to receive their income regardless of the lockdown. Therefore, they too do not influence private demand during the pandemic or in the short run after the pandemic is over. Stimulating private demand during the pandemic or in the post-pandemic period would largely be inflationary rather than stimulating growth. This is because supply shocks would be eliminated only after a lag in the post-pandemic period.

The exponential growth in the number of COVID-19 cases and the resultant deaths have put tremendous pressure on healthcare systems across the globe. A challenge faced by developing countries like India is the size of population. However, India has healthcare infrastructure

facilities close to the World Health Organization (WHO) norms. The Government of India has been adopting expansionary fiscal measures, albeit gradually, in recent years, with the launch of Ayushman Bharat scheme in 2018 being a notable example. A large number of private hospitals are empanelled under the said scheme, which takes care of the supply side in terms of the scale of infrastructure as well as medical and paramedical staff. If required, the Ministry of AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) would add to the supply of required medical and paramedical staff. The Government of India has already asked volunteer doctors to come forward, taking care of the supply side to a considerable extent. Moreover, the government has announced an emergency healthcare package of ₹15,000 crore.

The demand for healthcare for COVID-19 can be controlled by the use of Economics Nobel Laureate Richard Thaler's "nudge" theory applied to healthcare. Conveniently, India established a "nudge" unit in 2019 and initiatives such as working from home and paid holidays for workers are already implemented by organisations and the government to prevent the spread of COVID-19. The Janata Curfew of 22 March across the whole of India was observed as a precautionary measure. Either incentives or sanctions are necessary for enforcement. In the context of the current pandemic, sanctions for violating the government's precautionary measures would enhance the efficacy of nudges.

Smruti Bulsari

SURAT

Anil Gumber

UNITED KINGDOM

EPW Engage

The following articles have been published in the past week in the *EPW Engage* section (www.epw.in/engage).

- (1) Media in the Time of COVID-19—*Bhupen Singh*
- (2) A Socialist Cry for Civilisational Change: COVID-19 and the Failure of Neo-liberalism—*Vijay Prashad*
- (3) No 'Room' for Social Distancing: A Look at India's Housing and Sanitation Conditions—*Mohd Imran Khan, Anu Abraham*
- (4) Looking Beyond the Postcolonial Reading of Rabindranath Tagore's Works—*Tanzeem Ahmed*

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Indian Federalism and COVID-19

Following the principle of fairness to regulate centre–state relations during a crisis becomes urgent.

In normal times, the relationship between the centre ruled by a particular party and state governments led by different parties tends to get muddled by partisan and even by vindictive politics. The history of harassment of the state governments led by parties other than the ruling party at the centre is also the history of unfairness that structures the relationship between the centre and the state. Thus, in normal times, partisan politics colours the decent federal relationship between the centre and the state. Given the serious nature of the crisis, it may be assumed that the outbreak of COVID-19 pandemic, as it were, has led to the suspension of everyday forms of the politics of harassment of the state governments led by opposition parties. However, one may not completely rule out an element of asymmetry of power that seems to put the centre into a privileged position to take decisions without the required deliberation with the states. The centre seems to enjoy the exclusive authority to hand down the lockdown decision to the states, which have been shouldering public responsibilities to confront the pandemic. Considering the enormity of the challenge posed by the pandemic to protect the lives and livelihoods of the vast masses, a definite shift away from these ordinary ways of doing things is necessary. One would expect the ruling party at the centre and its leadership to take the lead in facilitating this shift. However, the experience of the past one month is far from encouraging.

The unilateralist approach of the government at the centre has been evident right from the beginning as the first phase of the lockdown was declared without consulting the state governments and/or major opposition parties. Acute problems created by the sudden announcement of the lockdown, effectively leaving not enough time to prepare, had to be addressed by the state governments. The state governments, in the event of the sudden decision of the lockdown, were in a difficult situation to handle the problems of migrant workers who were stranded in these states. Considering the uneven support structures that exist in different states, the process of framing rules and modalities of the lockdown demanded the participation of these states when the lockdown decision was announced on 24 March. However, this process was also characteristically top-down, and the series of changes introduced as an afterthought were due to

the pleas made by the states. Considering that health as well as home—two of the most important heads during these times—are state subjects, elementary compliance to federal principles would have meant the decisive participation of states in devising the strategy to deal with the pandemic. Ideally, there should have been an all-party meeting as well as a meeting with all chief ministers of states before heading towards a lockdown. As the reports from electronic media show, the central government led by the Prime Minister seems to have avoided the lapses that were evident in the lockdown decision. The central government did make some efforts to open up the channels of discussion and deliberation with the opposition leaders. Even in normal circumstances, the central government should show cognitive generosity towards seeking the expertise available with the senior leaders from the opposition parties. Similarly, it will be in the interests of the ideal federal structure if the central government shows willingness to learn from the experiences or best practices of some of the state governments. Nevertheless, a crisis of such proportions can only be tackled by joint efforts of all political parties as well as all the state governments across party lines. This would demand a decentralised approach and will increasingly empower the state- and district-level administrations. The actions of the central government, however, point to the contrary as it continues to take recourse to one-upmanship, centralisation and micro-management from above. Be it the uncalled for “advisories” to the states from the union health ministry to not procure personal protective equipment and ventilators themselves and place their demands to the centre, or the very constitution of the Prime Minister’s Citizen Assistance and Relief in Emergency Situations (PM CARES) fund superseding the existing Prime Minister’s National Relief Fund (PMNRF) and excluding the opposition parties altogether.

Even more problematic is the decision to suspend the Members of Parliament Local Area Development Scheme (MPLADS) funds and divert them to Consolidated Fund. The Members of Parliament (MPs) having a better connect with their constituencies would have been better equipped to utilise this fund in coordination with district administration and planning boards. Furthermore, grievances regarding the non-payment of the goods and

services tax dues by the centre to the states has added to the woes of the already resource-starved and fiscally-constrained states. In fact, the current crisis of health and economy demands that over and above these dues, the centre should be releasing additional funds as well as widen the state fiscal deficit limits. One wonders whether the reluctance to meet these demands stems from partisan considerations.

Nevertheless, the centre and the ruling party would do well to listen to the opposition parties, who have underscored the spirit of unity, by and large refrained from partisan criticism, and have continued to make constructive suggestions despite these not being paid heed to. Forging unity is the responsibility of the government and that cannot be expected to be achieved by giving short shrift to reasonability and accountability.

Plight of the Stranded Workers

India's urban economies depend on migrant labour who should not be treated like "problems" during a lockdown.

Beyond the blame game, political allegations and castigations for violating lockdown norms, certain stark factors remain undisputed in the context of the mass gathering of migrant workers near Bandra station in Mumbai, and in Surat and Hyderabad on 14 April. The same attempt at desperate gathering was witnessed on the same day in Mumbra, Mumbai's far-off suburb. News reports said that in Rajasthan and Tamil Nadu, migrant workers had begun walking on railway tracks to their homes, from urban centres. In the days following, newspapers carried reports and pictures of migrants walking along the Mumbai–Agra highway, aiming for their homes in the northern states. What almost all had in common was their sheer desperation to go home to be with their families, dwindling or no resources and, in many cases, physical hunger. More significantly, these episodes brought home what “social distancing” can mean for people who live in densely populated slums with bare basic amenities, with nearly seven to 10 of them in flimsy 10×10 feet rooms, and how they will be able to maintain this distancing as the summer season advances mercilessly.

Why is it so hard to understand that these workers want to be with relatives and family and in familiar surroundings during a time that appears frighteningly uncertain and insecure? A section of the print media has done a magnificent job of collating the life stories of these workers in this time of lockdown. These news reports bring home how these workers, who form the backbone of the informal economies of Indian cities, are now feeling trapped in what was their choice of place to work and earn for their families. In Mumbai, as in other large urban centres in the country, these workers live in rented shanties and tenements whose landlords themselves cannot afford to survive without the rent. They are employed in small industrial units, eateries, garment sewing shops and other enterprises in the informal sector which have either closed down or are barely surviving. They also make up a large part of the transport and hospitality services. In Surat, they work in the diamond and textile hubs. During every calamity—natural or man-made—the daily wage earners are the first to be hit. What a lockdown of weeks together would do to their lives is not beyond imagination for those who are in touch with this reality.

It is not just the informal sector but the very daily life of all urban citizens to a large extent that depends on the services

offered by migrant workers, across the country. At most times, their poor living conditions and long hours of work are rationalised away as being much better than what they would face “back home in underdeveloped” areas. If India's cities and metropolises can boast of round-the-clock access to services across major areas, it is largely due to the contribution of the labour of these migrants. The need of the hour is to give a practical push to such labourers' right to receive sustenance amenities like every other citizen of this country. The Maharashtra government has pointed out that it has not only been making every effort to provide food to these workers, but has also been exploring avenues to ensure their passage back home. Non-governmental organisations (NGOs) have also added to the government's efforts to provide food to the needy through community kitchens. What adds to the woes of the migrant workers is that many of them do not have ration cards to avail of the public distribution system at their places of work.

Unfortunately, the episode in Mumbai also triggered off a political slinging match between spokespersons of different parties. Many of them blamed the lack of planning before the national lockdown for the desperation of the workers who were willing to clutch at any offer of being transported home. They had assumed that the lockdown would end and at least their transport to go home would be facilitated. Many, speaking to the media, even said that they do not mind braving hunger but cannot live with anxiety, fear and uncertainty away from their families. It would not be an exaggeration to say that a large percentage of this migrant labour not just from other states but also from within the states, have contributed to the wealth of India's cities and urban centres. To now project their helplessness as a law and order situation that is creating problems for all others is grossly unfair. Some television channels and social media posts denounced their acts of anguish as selfishness that can lead to risks for others. Significantly, the distribution of food and other basic requirements should not be looked upon as a form of charity. As willing workers who contribute to the urban economy, they have a right to sustenance when the circumstances that have created their hunger and helplessness are beyond their control. What also needs to be considered is that the urban cities' economies will need these very migrant workers in the period after the COVID-19 crisis passes.

Coming to Terms with the Ethical

Indian scholars have not made adequate attempts to establish a relationship between the concept of ethics and the practice of formal politics—the politics based on instrumental reason to capture political institutions through elections. As a result, we have not addressed the question: What are the constitutive conditions that configure the relationship between ethics and such politics? In order to comprehend the question in its complexity, we need to make a collective sense of the two aspects of ethics and instrumentalised politics. The need to explore the relationship between the two, therefore, has become all the more important, particularly in the context of the lockdown occasioned by the outbreak of COVID-19.

In this regard, what bearing does the current state of lockdown have on the relationship between ethics and politics? The language of ethics of caring for the poor, and the elderly, and the official appeal that was made to philanthropic organisations to reach out to the needy was distinctly present in the extension decision of the central government. In the event of such a decision, coupled with the official appeal to the people of India, the element of responsibility and duty tends to bring enormous pressure on people's moral capacity to filter out their accumulated sense of anxiety to reunite them with their respective families.

It has been repeatedly said by the respective authorities operating at the centre as well as the state that the people, particularly those who are stepping out from their houses, have a duty to remain indoors so as to break the chain. It only means that those who step out alone, in groups or larger collectivity, as it happened in Bandra in Mumbai and Surat in Gujarat, such "transgressors" fail in their duty to their own self and to others. According to such an understanding, such collectivity risks not only their life but others, as well. Taking responsibility to stay indoors occurs in the reason that is suggested to be absent in those who step out from the house while the lockdown is on. It is being suggested by those who are administering the lockdown decision; since those who sneak out or even storm into the streets fail to use their autonomy for self-restraint and, hence, are liable to their forcible confinement and punitive action. As the reports suggest, the violators of government orders, by and large, are from the least advantaged

sections of society. It is this kind of people who, on account of stepping out, lack reasons that would internally compel them to stay indoors. It is such cognitive deficiency that tends to propel the authorities to bring compulsion from the outside.

In this regard, it is crucial to pose the question: Are the ethical and emotional conditions not important in making the decision of the lockdown successful? The success of the lockdown depends on the ethical principle which for such success would demand a fair distribution of conditions. By this, one is not suggesting equality in suffering but fair distribution of social and emotional security, meaning a minimum degree of freedom from anxiety. Arguably, the financial provisions that were made in the aftermath of the 24 March decision did not factor in the emotional needs of the stranded ones. The decision to extend the lockdown did highlight the need for ethical care for the poor and the elderly. As the reports from different parts of India show, people, especially those stranded in different places, do not seem to find such efforts adequate enough to offer them emotional succour. Their acute desire is to get back to their dear ones who are away from them.

Arguments coming from the authorities might suggest that the workers in question have been overwhelmed by the force of emotions rather than reason. However, this accusation when viewed from moral reason looks unfair. In normal times these workers would not show the same degree of desperation and restlessness. In such a time, certain social channels that are available at the workplace, social gatherings, *majdoor bazaars* (labour markets) and finally, an opportunity to travel back and forth between home and the workplace, all these factors together now stand to be temporarily suspended. These channels, for good public reasons, have been blocked. These channels, which worked as a filtering mechanism of emotions, did not allow the accumulation of "surplus emotions." It is this ethical empowerment that would generate among these workers the capacity to reason. After all, the success of the lockdown, among other things, also depends on emotional support being equally available to everyone.

FROM 50 YEARS AGO

ECONOMIC AND POLITICAL WEEKLY

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Slim Hope

A new call to arms for yet another battle against Israel, a battle that President Nasser says Israel is "imposing" on Egyptians, would seem to be hardly an encouraging setting for the revival of diplomatic contacts between Cairo and Washington. Yet despite Nasser's grim warning and the sav-

agery of Israeli raids across the ceasefire line — some 30 Egyptian school children were killed in a recent raid — it is not impossible to hope that the feared Armageddon may yet be averted. The hope is admittedly a slim one, and comes via a somewhat unlikely source, namely, the US State Department, but not unworthy of entertaining.

Apparently, Joseph Sisco's talks in Cairo have not advanced the prospect of peace by any measurable length, but the very fact that the US Assistant Secretary of State made the trip to Cairo is not insignificant. The visit follows President Nixon's refusal to meet Israel's latest demand for

25 Phantoms and 100 Skyhawks. This itself may not mean much, for Nixon must be deemed to have taken into account Israel's existing air-strike capacity, weighing also the expected French deliveries of aircraft to Libya, before halting any further immediate deliveries to Israel. William Rogers, US Secretary of State, is on record as saying that Israeli air power is "sufficient to meet its needs for the time being".

However, it is a fact that the American refusal has caused near-consternation in Israel. Whether the American caution is directed at Moscow as much as at Tel Aviv, it is difficult to say.

Mapping the Appointments and Tenures of Supreme Court Judges

ALOK PRASANNA KUMAR

The debate about the tenure of judges of the Supreme Court of India is fixated somewhat unnecessarily on the retirement age than the actual time spent in the Court. Examining the length of the tenure gives some hints as to the unwritten criteria of appointment and may potentially offer a deeper understanding of the systemic problems faced by the courts.

While there is much writing about the appointment of judges of the Supreme Court of India (Sengupta and Sharma 2018), rigorous data analyses of judges' appointments and tenures are few and far between. Two stand-out exceptions to this are George H Gadbois's *Judges of the Supreme Court of India: 1950–1989* (2011) and Abhinav Chandrachud's *The Informal Constitution* (2014). They offer many interesting insights and, in the course of this column, I hope to build on some of them to think about how the tenure of judges might be affecting the institution itself.

Between January 1950 and April 2020, a total of 247 judges were appointed to the Supreme Court. From being seven strong in 1950, the Supreme Court currently has 33 judges as against a sanctioned strength of 34. Its size was recently increased from 31 to 34 under the Supreme Court (Number of Judges) Amendment Act, 2020. The retirement age of judges, fixed under the Constitution as 65, has never been changed.

Methodology

Data on the date of birth, date of appointment, and date of retirement/resignation/death is available on the website of the Supreme Court of India (scind). More detailed data about every single judge appointed between 1950 and 1989 is available in Gadbois's book (2011), which was itself based on detailed interviews with judges and their immediate family.

While judges have, in the past, not always retired at the age of 65 (through death or resignation), for the purposes of this column, I have looked at their expected tenures as opposed to their actual tenures. Expected tenure may be deduced from the age of the judge as on

date of their appointment and extrapolated to their date of retirement. As an unwritten criterion for appointment, the age of a judge has been discussed in some depth in Chandrachud's book (2014: 163–71).

In arriving at expected tenure, I have further split up the data between those who were expected to be appointed as chief justices of India (CJIs) and those who were not. This is irrespective of whether they were actually appointed as CJI or not. At the time of appointment, whatever manner in which it was carried out, there is foreknowledge of how long a judge is expected to serve and—since the seniority convention has been followed (with three notable exceptions)—whether the judge in question is likely to become Chief Justice of India or not. Data for this has been gleaned from Gadbois's book (2011), where in the context of each judge it is mentioned whether the said judge was likely to have been appointed as CJI on the basis of the seniority convention.

To illustrate, Justice S C Roy, when he was appointed to the Supreme Court on 19 July 1971, would have also been appointed as CJI as per the seniority convention in February 1977 (Gadbois 2011: 166), but his death in November 1971 meant that did not happen. He has been coded here as an expected CJI. On the other hand, Justice Ranganath Misra, who was appointed CJI in 1990 on the death of Justice Sabyasachi Mukherjee, is coded here as an expected puisne judge (a judge who is not a chief justice) since he would not have become CJI if it were not for Mukherjee's death (Gadbois 2011: 292).

As of April 2020, 12 judges have died in harness and a further 12 resigned before their tenure was completed. The idea is to see if there are any discernible patterns in the manner in which the expected tenure of judges has changed or influenced the appointments of judges. To avoid outliers skewing the data, I have presented both the mean and the median figures in each case.

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Analysis of the Data

Analysing data across 70 years, we find that the mean expected tenure for a judge of the SC is roughly 5.62 years and the median, 5.26 years (Table 1). When Gadbois (2011: 369) looked at the average tenure at the end of his book, he found the mean tenure to be 6.5 years, a figure that has clearly decreased substantially by 2020.

This by itself is not very useful, but disaggregating it by CJIs and puisne judges, and over the course of time, offers us more interesting insights. As Table 2 shows, there is a stark difference in the expected tenure of those who were expected to be appointed as CJIs and those who were expected to be puisne judges.

The tenure of a judge expected to be a CJI and one not expected to be is fairly different. A judge expected to be a CJI is usually appointed around the age of 54, and a puisne judge around the age of 60.

Do these patterns change over time? While it is possible to break up appointments by CJI and Prime Minister as Chandrachud (2014: 171–77) has done, Gadbois offers a more interesting way to examine this. The constitutional provisions relating to appointment have not changed at all since 1950 and the one attempted change in 2014 was struck down by the Supreme Court in *Supreme Court Advocates on Record Assn v Union of India* (2016; fourth judges case). However, the actual procedure by which appointment was made has changed over time and Gadbois (2011: 152–53), for the period between 1950 and 1989, notes that there was a definite change in the year 1971 after S M Sikri took over as CJI. While, prior to 1971, appointment was solely the prerogative of the CJI,

Table 1: Average and Median Expected Tenure of Judges, n=247

	Expected Tenure (days)	Expected Tenure (years)
Mean	2,052.35	5.62
Median	1,922.00	5.26

Source: Author's calculations based on data from SCI (nd) and Gadbois (2011).

Table 2: Expected Tenure of CJIs and Puisne Judges

	Number of Judges	Mean Expected Tenure (years)	Median Expected Tenure (years)
Expected CJIs	55	8.13	7.82
Expected puisne judges	192	4.91	4.63

Source: Author's calculations based on data from SCI (nd) and Gadbois (2011).

post 1971, the union government had greater say in appointments, which led to more of its nominees making it to the bench. This was not known at the time and was made public only much later, and the practice was given legal sanctity in the *S P Gupta v Union of India* (1991; first judges case).

Following the judgment in *Supreme Court Advocates on Record Assn v Union of India* (1993; second judges case), the

procedure changed once again, and quite dramatically, and introduced the so-called collegium system of appointment. Though the number of judges on the collegium was expanded from the three senior-most to the five senior-most, the overall procedure remained the same with the collegium having the final say in the appointment of judges (Department of Justice nd). That the collegium system has come under stress in the recent years is unquestionable (Kumar 2019), but it is still too recent to be accounted for here.

For ease of reference, judges appointed between 1950 and 1971 are deemed to have been appointed through Procedure 1 (primacy of the CJI), those between 1971 and 1993 through Procedure 2 (union government and CJI as equal partners), and those appointed after 1993 as Procedure 3 (collegium system). Table 3 shows this break-up.

Table 3: Mean and Median Expected Tenures of CJIs and Puisne Judges Over Time

Manner of Appointment	Number of Judges	Expected Rank	Mean Expected Tenure (years)	Median Expected Tenure (years)
Procedure 1 (1950–71)	40	CJI	8.83	9.16
		Puisne	5.00	5.04
Procedure 2 (1971–93)	71	CJI	8.53	8.62
		Puisne	5.34	4.86
Procedure 3 (1993–2020)	136	CJI	7.31	7.12
		Puisne	4.67	4.45

Source: Author's calculations based on data from SCI (nd) and Gadbois (2011).

Table 4: Expected Tenures of Longest-serving Judges in Each of the Three Procedures

Manner of Appointment	Name of Judge	Date of Appointment	Expected Date of Retirement	Expected Number of Days	Expected Number of Years
Procedure 1	M Hidayatullah	1 December 1958	16 December 1970	4,398	12.04
	J C Shah	12 October 1959	21 January 1971	4,119	11.28
	Sudhi Ranjan Das	26 January 1950	30 September 1959	3,534	9.68
Procedure 2	P N Bhagwati	17 July 1973	20 December 1986	4,904	13.43
	Y V Chandrachud	28 August 1972	11 July 1985	4,700	12.87
	R S Pathak	20 February 1978	24 November 1989	4,295	11.76
Procedure 3	K G Balakrishnan	8 June 2000	11 May 2010	3,624	9.92
	B N Agrawal	19 October 2000	15 October 2009	3,283	8.99
	S H Kapadia	18 December 2003	28 September 2012	3,207	8.78

Source: Author's calculations based on data from SCI (nd) and Gadbois (2011).

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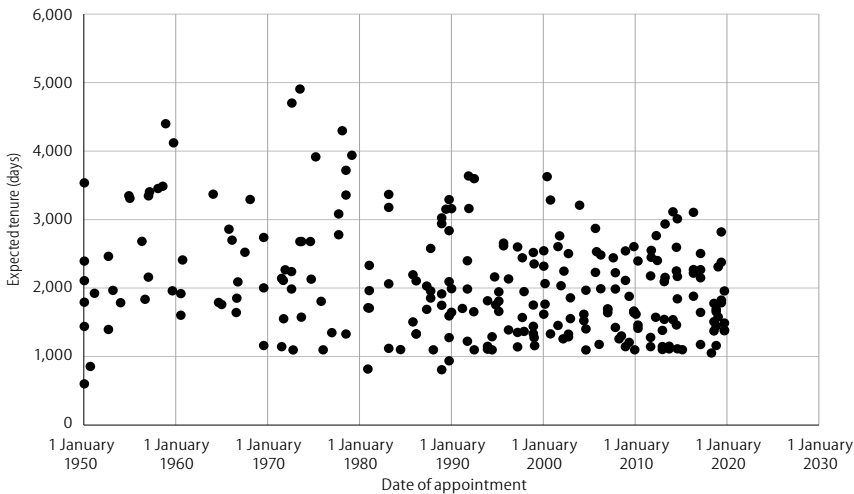
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Figure 1: Expected Length of Tenure (Days) of Judges of the Supreme Court

Source: Author's calculations based on data from SCI (nd) and Gadbois (2011).

The drop in the mean and median expected tenures is fairly consistent across all methods of appointment, with the collegium providing for the lowest average tenure. It is also necessary to point out here that this is not just the effect of more judges being appointed. The expected tenures of the longest-serving judges in each of these methods vary along similar lines (Table 4, p 11).

With the sole exception of Justice B N Agrawal, all the judges did become CJIs and served out their full terms.

Plotting the expected tenure of every single judge against their date of appointment immediately reveals a very interesting pattern (Figure 1).

The wide variation seen in the initial years of the Court starts to reduce in the early 1990s, and by the mid-1990s and 2000s starts to cluster very tightly between the 1,000 and 3,000 days marks.

Conclusions

A minimum of 1,000 days' tenure (approximately three years) and a maximum of 3,000 days' tenure (approximately nine years) seem to be the unwritten criteria for selection of judges to the Supreme Court (Chandrachud 2014: 148–63). Given the current pattern, the record of P N Bhagwati as the longest serving judge of India is safe, as is the record of Y V Chandrachud as the longest serving CJI.

Does the reduction in the median expected tenure of judges and CJIs have any implications for the institution?

Chandrachud's book delves into this global debate: Asian nations such as South Korea and Japan have shorter tenures for Supreme Court judges, while European and American courts tend to have much longer tenures (2014: 151–61). However, given the specifics of the Indian Supreme Court, three areas of potential concern present themselves.

One, the massive attrition means that more time and energy is spent by senior judges and the government in filling up posts, failing which the number of vacancies increases, adding to the pressure on the remaining judges. In the absence of long tenures, appointments to the SC are a never-ending process, as in any given year a significant number of Supreme Court judges keep retiring. Some years, nearly a third of the Court retires; in 2013, 10 judges retired and the same number is expected to retire in 2022.

Two, shorter tenures also mean shorter tenures as CJI, meaning that any attempt at long-term institutional change will be hard to oversee to completion and any changes may very well be undone by successors. Given the short tenure, and the fact that the Supreme Court as an institution may have its own peculiarities, judges may take some time to even get acquainted with the Court, but, by the time they do, it is almost time for them to go (Chandrachud 2014: 269).

Three, a short tenure may not create a sense of ownership in other judges to

think of the institution and its needs. Having spent the bulk of their careers in their parent high courts, a four- to five-year term in a different court at the end of their tenures may not be conducive in getting them to invest time and energy in adding to the institution, leaving them to function like cogs in a wheel.

Addressing these concerns may require both an increase in the retirement age of judges (as has been suggested in many fora) (Paul 2018; ANI 2018), but also in coming up with definite criteria for appointment to ensure that judges serve at least a decade in the Supreme Court. This might ensure stability in the functioning of the Court and allow judges to shape the way it works, rather than simply letting inertia do it for them.

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Skewed Urbanisation and the Contagion

PARTHA PRATIM BISWAS

Alongside the dearth of healthcare infrastructure, unplanned and market-driven urbanisation further challenges the containment of the outbreak of infections like COVID-19, in India. In this context, the prospects of an inclusive urban land use plan are also focused on.

Human societies have witnessed a significant decrease in mortality from infectious diseases over the past century. During 1918–20, the Spanish flu pandemic infected more than a quarter of the world population and resulted in 50 million deaths mostly in the urban areas around the world. Since then, the most severe globalised viral infection is the COVID-19, spreading to over 202 countries and affecting more than a million of the world population till date. According to a recent estimate of the World Health Organization (WHO), an infectious disease can kill an average of 50,000 people daily, worldwide.

Global evidences suggest that with more opportunities for contact and exposure, urban areas are more susceptible to the infection. Presently, more than half of the global population live in urban areas (Neiderud 2015). While this proportion was less than 20% a hundred years ago, it is expected to exceed 60% by 2030 (Neiderud 2015). In this setting, this article attempts to find out the correlation between the spread of infectious disease and the process of skewed urbanisation in the Indian context, particularly given the recent experiences of the accelerated spread of dengue and chikungunya, both being well adapted to the urbanised areas.

Urbanisation beyond Planning

The definition and interpretation of the word “urban” is not uniform globally. However, in general the process of urbanisation refers to a societal transformation taking place with the increased mobility and settling of people in urban surroundings. Urbanisation as a process of geographic transformation may be explained by the migration of people from rural to urban, suburban and peri-urban areas with the perception of

a better quality of life that includes better employment, education, healthcare, transportation, communication, housing, entertainment, etc. In the global context now, Asia and Africa with about 8.8 lakh and 2.3 lakh people, respectively, moving to urban areas every week, face a rate of urbanisation that is higher than that in Europe and North America (Kyle et al 2019).

In India, 34% of the total population is urban (GOI 2011). According to the 2011 Census, the geographical areas with a minimum population of 5,000 or a population density of 400 per square kilometre (km) area, in which 75% of the male population are engaged in non-agricultural activities, are identified as urban. When viewed in this definitional framework, urban growth in India is found to be predominantly unplanned and market-driven. As a result, most of the old cities that have emerged as the growth centres in the Indian context are found to have developed skewed distributions of urban essential services.

Mobility-driven contamination: The spread of infectious diseases, especially in the urban areas, cannot be explained as a biological process only. Mobility of people and their physical connectivity are critical determinants of the efficiency (or the lack of it) of urban growth centres in containing and mitigating the spread of contagious diseases. In today’s globalised world, the primary mobility of people across the countries are through air travels, whereas the physical connectivity within the country are aided by public and private surface transport systems, predominated by motorised vehicles.

Global mobility, measured by accelerated growth in passenger air traffic, shows that the air passenger traffic in 2018 was 4.2 billion compared to 310 million in 1970 (Whiting 2020). This is indicative of a radical increase in urban mobility. The newer connections made during this period were largely between the developed and developing countries in Asia, Latin America and Africa. In this context, the Chinese city Wuhan,

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which is connected by 34 international and regional air routes (Whiting 2020), represents a case at hand to understand the effects of (global) mobility on contagion.

On the other hand, when the infection reaches a stage of community transmission, intra and intercity mobility of people further increases the risk of spreading. Against this backdrop, one may recall that in India road transport carries 90% of the passenger traffic with an average journey speed ranging between 18 km and 25 km per hour within cities. Moreover, passenger data available from local train services in Mumbai, Kolkata and Delhi show that 7 million, 4 million and 2.5 million commuters, respectively, use these services daily to travel to the central business areas of cities from the suburbs. These coaches travel with a passenger density that is much higher than the recommended density for the electric multiple unit or the diesel multiple unit coaches. The lower operating speed and the alarmingly higher passenger density in public transport are the major reasons behind the higher probability of contact-based infection due to increased proximity.

The provision of non-motorised transport in mega or metro cities could have helped in lowering the motorised passenger density, which often is found to be linked with the spread of viral infections in urban areas. Often, urban regulatory bodies attempt to offset increased passenger density by increasing vehicle density. But in a situation when most of the arterial routes in a city get saturated during the peak hours in the morning or evening, increased vehicle density results in increased journey time that further exposes the passengers to higher probability of longer span of contact. Moreover, the growing rate of air pollution due to vehicular traffic and huge construction and demolitions waste are increasing the incidence of lung infection with respiratory diseases in the urban areas. Ironically, people with weak respiratory conditions, are found to be more susceptible to the virus. This represents a vicious cycle of urbanisation and infectious diseases.

Population density and contagion: In India, cities are categorised as “metro”

and “mega” based on population size. Table 1 presents the population density of the major cities in India. Mumbai, Chennai and Kolkata have population densities that are significantly high on the global scale, with Mumbai being among the most densely populated megacities in the world.

Table 1: Population Density of Major Indian Cities

	Population Density (Persons per square mile)
Hyderabad	23,545
Bengaluru	26,191
New Delhi	28,600
Chennai	37,223
Kolkata	61,945
Mumbai	76,790

Source: Vidal (2018).

Higher population density is an indicator of larger contact points among people living in constricted areas, thereby increasing the probability of air-borne or contact-based infection. It is important to note that there is no permissible upper limit of population density in a city, though there is a lower limit. A city like Hong Kong with a very high population density manages with huge capital investment to maintain the city infrastructure and services to ensure the required health standard, which in India is not possible due to a dearth of resources and wrong prioritisation of issues in urbanisation.

In this context, it is important to note that a key aspect of the urban population distribution in India is its non-uniformity across space. For example, in Mumbai and Kolkata, 54% and 32% of the city population, respectively, are in slum areas where the actual population density is much higher than the average population density of these cities. This coexistence of the areas of extremely poor living conditions with the costliest built-up areas for people in the upper income brackets can drive a differential approach of governance with respect to the allocation of resources for city infrastructure.

Healthcare Infrastructure

According to the estimates of the National Sample Survey 69th round report on housing conditions in India, the built-up area per family for the poorest 60% of the urban population is 380 square feet (sq ft). It means the average space per

person, excluding the circulation area in the house, is 72 sq ft. This is even less than the built-up area of 96 sq ft recommended for a prisoner in India (*Times Now* 2017). The average per capita space for the owners of rented house or slum dwellers in city areas is only 42 sq ft. Needless to say, home quarantine cannot be an effective model for mitigating spread for such densely populated urban strips. Especially, when the infection has reached the stage of community transmission, access to proper healthcare facilities becomes an imperative.

Despite the huge growth in urban population density during the last two decades, there has been no commensurate improvement in the healthcare infrastructure. Contrary to the World Health Organization (WHO) recommended doctor–patient ratio of 1: 1,000, India currently exhibits a ratio of 1: 10,189, thereby indicating a shortfall of about 6 lakh doctors. Simultaneously, there is a shortage of nurses by 20 lakhs (*Economic Times* 2019). A comparison of the availability of hospital beds per 1,000 population with some of the most affected countries like China, Italy and the United States reveal the poor state of availability (and intuitively, access) of hospital infrastructure in India (Table 2).

Table 2: Availability of Hospital Beds in Major COVID-19-affected Countries

Country	Hospital Bed per 1,000 Population
China	4.3
Italy	3.2
US	2.8
India	0.55

Source: Bhaduri (2020).

With these countries' experiences of havoc due to the pandemic despite having better hospital infrastructure, is it difficult to anticipate the pandemic's impact in India, given a generally poor health awareness amongst the population, alongside the meagre availability of hospital beds per 1,000 population? A collaborative study by the Centre National de la Recherche Scientifique, the Institute Pasteur, and the National Institute of Malaria Research found that nearly 40% of the population of New Delhi—which has a healthcare infrastructure with data acquisition

system of infectious diseases—have been infected by dengue at least once in their lifetime (Telle 2018). With such examples at hand and the violation of the minimum health safety standards of social and physical isolation that many have already demonstrated during the lockdown, it is not difficult to understand the precarity of the situation in Indian cities that are much inferior in terms of healthcare infrastructure.

Role of Urban Regulatory Bodies

The social and spatial spreading of the infection needs a re-evaluation of the role and scope of regulatory bodies in urban area development. The development of most of the cities in India is occurring around the peripheral areas either by filling up low marshy lands and waterbodies, or through deforestation.

The additional built-up area thus created for human settlement makes the new human occupant exposed to the diseases that are insect-borne or result from multidimensional disturbances of the ecological balance. Moreover, the microclimate changes around a densely built-up city area further aggravates the regeneration of viruses. During the present crisis, hourly and regular hand washing for disinfection has been advised by the doctors. But the important question is, how many of the city slums have adequate pipeline water supply with adequate discharge points so that physical contacts can be avoided to a decent scale while collecting water from the community taps?

In this context, the rule of permitting more built-up space by allowing more floor area ratio (FAR) within the cities needs to be revisited. While vertical extension of buildings may free up some additional built-up space in cities, but the effect of increased population density on the city's healthcare system, transportation network, level of noise and air pollution, supply of adequate drinking water, adequate sewerage and drainage for waste disposal are never taken in to account when allowing for the additional FAR. Basically, the buildings are allowed to be built first and then the other basic municipal services follow

from the demand generated from the increased population density, without any feasibility study being conducted. In order to achieve the target of desired and balanced FAR in an existing city or a peri-urban area, the revision of the land use plan corresponding to the city characteristics is to be made with the long-term perspectives of making the cities more inclusive.

Disappearing Community Life

It has been observed that despite the high population density in the cities, the city life has lost its community structure due to a faster rate of migration, among other things. This attracts a new set of people into the city and pushes many of the older residents out of the city. According to the 2011 census, a 48% increase in the city population in Delhi, Mumbai, Kolkata, Chennai, Hyderabad and Bengaluru was due to the migrant population of which 81% migrants were from other smaller cities.

The alienation of a large section of people from the city community structure makes the city life more difficult during the time of the community spread of an infection. The lacking sense of "community" often leads to a danger of higher infection even by the persons in the higher income groups with better educational profile and exposure. During the initial days of the COVID-19 outbreak, the elite, from actors to singers and from bureaucrats to politicians, had barely followed the official advisory of self-quarantine even after returning from international destinations that were declared to be virus affected. The self-centric urban life, with a higher access to state power, often makes a section of the people move in a "go as you like" manner. Moreover, absence or little presence of community life makes it easier for people to be less accountable to the society, thereby posing a challenge in mitigating the disaster of infectious disease at the community level.

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COVID-19 and the Public Health System in Bihar

AVINASH KUMAR, MANISH KUMAR

Bihar's public healthcare system is not equipped to deal with the challenge of COVID-19. The density of testing centres is the worst for Bihar in the country, with one testing centre for a population of 110 million. Besides, it lacks in both infrastructure and human resources in the health arena and, thus, is unprepared to deal with and properly respond to the health crisis.

The global pandemic of COVID-19 which has forced the world into a virtual lockdown registered its first case from Bihar on 22 March 2020. A 38-year-old man, who had a history of travelling, passed away at the All India Institute of Medical Sciences in Patna due to kidney failure. Later he was tested positive for coronavirus. On 23 March, it was reported that most of the junior resident doctors working in the Nalanda Medical College and Hospital, Patna—the designated hospital by the Bihar government as the state's primary hospital to treat cases of COVID-19—were exhibiting some symptoms due to exposure to a coronavirus positive patient. Instead of following a home quarantine for 15 days as advised, in the absence of any tests and response from the state government, all resident doctors continued to treat the patients for the next several days (Ray 2020). With no protocol regarding prevention and control of COVID-19, until the first death was reported, the mismanagement of the state administration forced Bihar into the stage of local transmission at the very beginning. The density of testing centres per population in Bihar is the worst in the entire country with only one centre, Rajendra Memorial Research Institute of Medical Sciences, in Patna to test its over 110 million population.

To deal with such a situation, what a state needs is not just expertise to identify the origin, spread, projected course and the methods to contain the virus spread, but also a strong health infrastructure with medical facilities and well-trained medical professionals at all levels—at the sub-centres and primary health centres (PHCs), and the rural and urban level. Also needed are adequate facilities for early detection, investigation, basic labs to conduct tests, and regular plans to conduct community health education to prepare the masses against

an evolving pandemic. However, the condition of the public health system in Bihar is dismal.

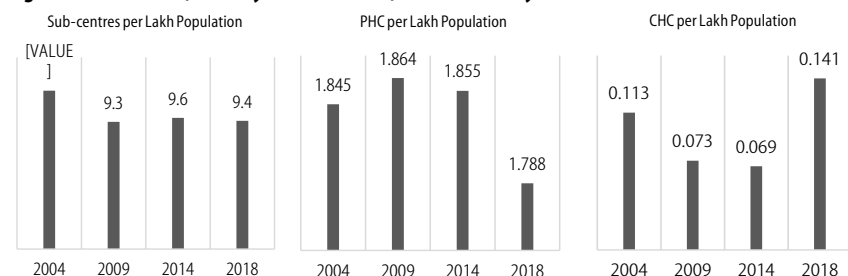
Health Infrastructure

With a population of over 30 million people living below the poverty line, mostly in rural areas, the role of the state in providing healthcare in Bihar is crucial (World Bank 2016). On several parameters of preventive and promotional healthcare services, the record of the state government in the last 15 years has remained far from satisfactory. To provide integrated curative and preventive healthcare to the rural population, India has developed a chain of sub-centres, PHCs and community health centres (CHCs). Sub-centres operate at the village level staffed by auxiliary nurse midwives (ANMs) and assisted by community-based outreach volunteers called accredited social health activists (ASHAs).

In 2004, Bihar reported having had 101 CHCs, 1,648 PHCs, and 10,337 sub-centres.¹ During the first tenure of the National Democratic Alliance (NDA) regime between 2005 and 2010, although the number of PHCs increased to 1,776, the number of CHCs and sub-centres decreased to 70 and 8,858, respectively. In the next five years, the number of CHCs recorded no change, but the number of PHCs and sub-centres increased to 1,883 and 9,729 (still lesser than that in 2004), respectively. As per the latest available information, that is, for 2018, the number of CHCs, PHCs, and sub-centres increased to 150, 1,899, and 9,949 respectively. As per Figure 1 (p 17), the number of sub-centres available for one lakh population in Bihar first experienced a decline from 2004 to 2009, and then improved only by a margin in the next five years to finally register a further decrease between 2014 and 2018. The number of PHCs per lakh population did not see a significant rise, but between 2014 and 2018, it experienced a sharp decline. The number of CHCs per lakh population declined between 2004 and 2014 and rose in 2018. However, even this rise in the number of CHCs per lakh population does not help the state to match the national average.

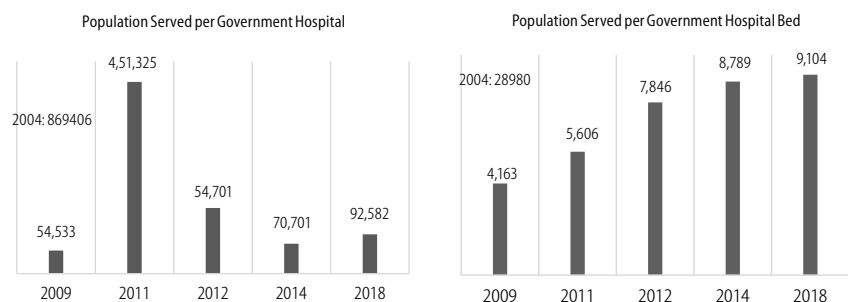
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Figure 1: Sub-centres, Primary Health Centres, and Community Health Centres



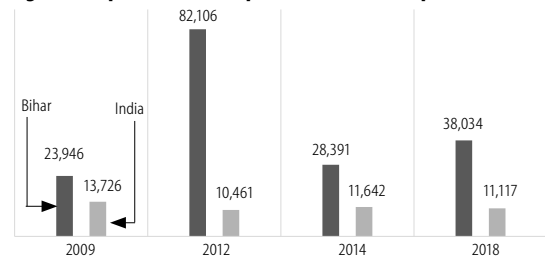
Source: National Health Profile, Government of India.

Figure 2: Population Served per Government Hospital and Beds in Bihar



Source: National Health Profile, Government of India.

Figure 3: Population Served per Government Allopathic Doctor



Source: National Health Profile, Government of India.

As indicated in Table 1, Bihar's healthcare service units continue to be more burdened as compared to the national averages of population per health centre.

Table 1: Population per Sub-centre, PHC and CHC in Bihar and India, 2018

	Population per Sub-centres	Population per PHC	Population per CHC
Bihar	1,067	5,592	70,795
India	819	5,042	23,080

Source: National Health Profile, 2019.

Concerning the healthcare services, such as the availability of government hospitals and the number of beds there, numbers in Bihar remains somewhat a mystery. In 2004, the Government of Bihar had reported a total of 101 government hospitals in the state with 3,030 beds. The average number of beds per hospital in 2004 thus was 30. These numbers remained unchanged in the first two years of the NDA's rule. But in 2007, this dramatically increased to 1,717 and 22,494, respectively. If this

data is to be believed, it will mean that the state government constructed 1,616 new government hospitals in just one year (between 2006 and 2007). This amounts to nearly 43 new hospitals in every district of Bihar. But ironically, despite these new hospitals, the average number of beds per hospital which was 30 in 2004 decreased to just 13 in 2007. These numbers thereafter remained constant till 2009.

Surprisingly, however, the reported number of hospitals by the state government decreased mysteriously to only 230 in 2011. The number of beds also declined (from 22,494 to 18,156), but the number of beds per government hospital in the state increased from 13 to 81. In 2012, the number of government hospitals further increased to 671 (this time 471 new hospitals in a year) but the beds in the hospitals declined from 18,156 to 13,231. The new average number of beds per government hospital is now reduced to 20. In 2013, the number of hospitals grew to 1,436 (765 new hospitals in two years) and the number of beds decreased to 11,552. This reduced the number of beds per government hospital to a mere 8. The number of hospitals once again decreased in 2016 to 1,033. As per the latest available figures,

the number of government hospitals and the beds reported in the state in 2018 is 1,147 and 11,664, respectively. This average of 10 beds per government hospital is still lower than the 2004 average. Figure 2 shows the changes in the population served per government hospital and beds (in the government hospitals) in Bihar over the past 15 years.

The burden on government hospitals in Bihar, according to the reported data for 2018, is almost double the national average. Similarly, each bed in the government hospital in the state has five times more burden than that of the Indian average (Table 2).

Table 2: Population Served per Government Hospital and Beds, 2018

Region	Population Served per Government Hospital, 2018	Population Served per Government Hospital Bed, 2018
Bihar	92,582	9,104
Indian Average	50,355	1,818

Source: National Health Profile, 2019, Government of India.

Human Resources

A parameter on which India has made good progress is medical education. India over the years has become the largest producer of doctors in the world. The total number of registered doctors in the country is 1.2 million, ANMs are 2.1 million, and registered nurses are 8,61,000, as of 2018 (CBHI 2019). However, the situation in Bihar on this count is not encouraging. While the number of medical colleges in Bihar was 15 in 2018, the burden of the population served per government allopathic doctor has worsened. In 2008, the Government of Bihar reported having 3,979 government allopathic doctors. This number mysteriously decreased to 1,206 doctors in 2012 and then reported a meteoric rise in 2013 to 4,963. However, this decreased to 3,576 in 2014 and further to 2,792 in 2018. The fall in the number of government doctors is also reflected in the population served by these doctors for the years under consideration (Figure 3). While the national average observes a decline in the burden, the same is rising in the case of Bihar.

One allopathic government doctor in India, on an average, attends to a population of more than 11,000, which is 10 times more than the WHO recommended doctor-population ratio of 1:1000

(Krishnan 2018). The situation in Bihar is the worst in the country where one doctor serves a population of more than 38,000 people.

The apparent reason for the overburdened health centres and other infrastructure units is the gap between required and available physical infrastructure and human resources in Bihar. As per the national norms decided by the Ministry of Health and Family Welfare (MoHFW), there must be a sub-centre for a population of 3,000 to 5,000, a PHC for every 20,000–30,000 people, and a CHC for a population of 80,000–1,00,000 (Ravishankar et al 2013). Likewise, the Government of India has also specified standard minimum numbers of health workers, doctors, specialists and technicians for the health centres. Table 3 provides the gap between required and existing infrastructure and human resources in Bihar in 2019.

Table 3: Gap Between Available and Needed Physical Infrastructure and Human Resources in the Health Sector in Bihar, 2019

Particulars	Required	In Position	Shortfall
HWC-PHC in urban areas	288	95	193
Doctors	95	95	0
Pharmacists	95	149	*
Laboratory technicians	95	0	95
Health workers (female)/ ANMs	475	95	380
CHCs in Rural Areas	887	150	737
Radiographers	150	1	149
Surgeons	150	13	137
Obstetricians and gynaecologists	150	30	120
Paediatricians	150	31	119
Pharmacists	150	52	98
Laboratory technicians	150	158	*
Nursing Staff	1,050	334	716
PHCs and HWC-PHCs in rural areas	3,548	1,899	1,649
Doctors	1,899	2,085	*
Health workers (female)/ ANMs	1,899	3,658	*
Health assistants (female)/ LHVs	1,899	95	1,804
Health assistants (male)	1,899	212	1,687
Pharmacists	1,899	235	1,664
Laboratory technicians	1,899	453	1,446
Nursing staff	1,899	1,296	603
Sub-centres and HWC-SCs in rural areas	21,337	9,949	11,388
Health workers (female)/ ANMs	9,949	20,570	*
Health workers (male)	9,949	1,244	8,705
ASHA workers	1,04,239	89,439	14,800

*** denotes surplus.

Source: Rural Health Statistics Report, 2019, Ministry of Health and Family Welfare, Government of India.

As per the latest available information, there are 9,949 sub-centres, 1,480 PHCs, 419 Health and Wellness Centres (HWCs), 150 CHCs in rural Bihar and 95 HWC-PHCs in urban Bihar. Urban Bihar does not have CHCs, sub-centres, and PHCs. The shortfall of sub-centres, PHCs, and CHCs in Bihar is the second largest amongst all Indian states, after Uttar Pradesh.

The human resource indicators, where the current number in Bihar is well behind the required numbers, are ANMs, lady health visitors (LHVs), male health workers, nursing staff, technicians and specialists. In the urban part, as per the MoHFW, each HWC-PHC must have at least one lab technician, but Bihar has none. The required number of health workers for each HWC-PHC is five, but Bihar has only one on an average, and hence, there is a deficit of 380.

The situation of rural Bihar is more critical than the urban areas of the state, as evident from Table 3. There are four specialists required for each CHC but, Bihar has only 82 specialists for 150 CHCs, which is just 14% of the required number. The existing number of lab technicians at PHCs and CHCs is just 30% of the requirement. There are 89,439 ASHAs workers in Bihar, 14,800 less than the required number. Thus, ASHAs who are the backbone of Bihar's healthcare system are overworked. Even worse is the fact that they are not just underpaid but are not recognised as government employees (Krishnan 2018).

Health Status

The poor and deteriorating health infrastructure in Bihar becomes stark while looking at the record of the state in addressing the epidemics prevalent in the state for a long time, such as malaria, kala-azar, encephalitis, and tuberculosis. Between 2005 and 2009, there were 12,868 reported cases of malaria out of which 24 persons died. From 2010 to 2014, the number of reported cases was 11,892 and two persons died. Between 2015 and 2019 the number of reported cases rose to 17,031 and the number of deaths reached five. Kala-azar has remained a major health problem in India ever since colonial times (Dutta 2008). The state although

has observed remarkable improvement in controlling the number of kala-azar cases and deaths in the last 15 years (Table 4), but it continues to have the highest number of kala-azar cases in the country.

Table 4: Cases and Deaths due to Malaria and Kala-azar in Bihar

Period	Malaria		Kala-Azar	
	Cases	Deaths	Cases	Deaths
2005–09	12,868	24	1,39,921	680
2010–14	11,892	2	82,687	225
2015–18*	17,031	5	18,840	5

* denotes an incomplete period.

Source: National Health Profile, Government of India.

Another major epidemic that has become a grave concern for the state in the last two decades is the Japanese encephalitis and acute encephalitis syndrome (AES). It has recorded a very high death rate. AES had caused more than a hundred deaths of children from poor families in just one district of the state, Muzaffarpur, in 2015 and 2019 (*India Today* 2019). During 2005–09, there were 1,077 cases registered, out of which more than 30% died. During the second term, there was a significant rise in the number of cases and the number of deaths due to AES. Between 2015 and 2018, the number of cases and deaths due to Japanese encephalitis and AES reported were 1,226 and 339 (more than 30% again). During the years under consideration, the average death rate in India due to AES declined from 22% to 15% and further to 10% (Table 5). However, in the case of Bihar, the death rate due to AES has remained very high. Tuberculosis continues to cause the highest number of deaths in the state. Between 2007 and 2016, a total 20,406 persons had died because of tuberculosis in Bihar (CBHI 2019).

Table 5: Cases and Deaths due to Japanese Encephalitis and Acute Encephalitis Syndrome

Period	Bihar		India	
	Cases	Deaths	Cases	Deaths
2005–09	1,077	371 (34)	22,029	4,798 (22)
2010–14	3,578	997 (28)	45,162	6,918 (15)
2015–18*	1,226	339 (28)	53,820	5,255 (10)

* denotes incomplete period, figures in brackets are the death rate in percentage.

Source: Different years of National Health Profile, Government of India.

Health Expenditure

The health status and infrastructure of the state has been constantly deteriorating and one of the major reasons for this

is the minuscule expenditure of the state government for public health. The public expenditure on health is not just the most essential tool in the fight against epidemics but also to achieve the Millennium Development Goals (MDGs) targets and reducing poverty. It has been widely accepted that more expenditure on public health facilities results in better health outcomes. But surprisingly, the public expenditure on health for the entire period under NDA rule in Bihar, on an average, has remained less than 4% of the total state expenditure. In 2018, the state government spent ₹7,794 crore for health, that is, ₹726 per person per year. Almost for every year under consideration, per capita state health expenditure of Bihar is the lowest in India (CBHI 2019).

The National Commission on Macroeconomics and Health in its estimate for 2009–10 had shown that Bihar's expenditure on health during the first NDA regime was much below the prescribed level of health spending. The gap between required resources and actual spending in the case of Bihar was the highest

(Hooda 2013). Even a decade later, the expenditure on public health in Bihar remains lower than the national average (RBI 2019).

It is clear from the above discussion that the public health infrastructure in Bihar is extremely inadequate and hence healthcare workers are overburdened. Due to shortfall in primary, secondary and tertiary care, the COVID-19 pandemic has been reportedly striking panic across the state every passing day. All hospitals are being overwhelmed by people with flu or cold-like symptoms, with no personal protective equipment for doctors, nurses and other medical staff and no facility for testing and quarantining the symptomatic. With such an under-equipped public healthcare system in the state, it is difficult to deal with the challenge of COVID-19. The NDA regime, which has allowed dismantling of the public health system, bears responsibility for Bihar's unpreparedness to deal with the pandemic.

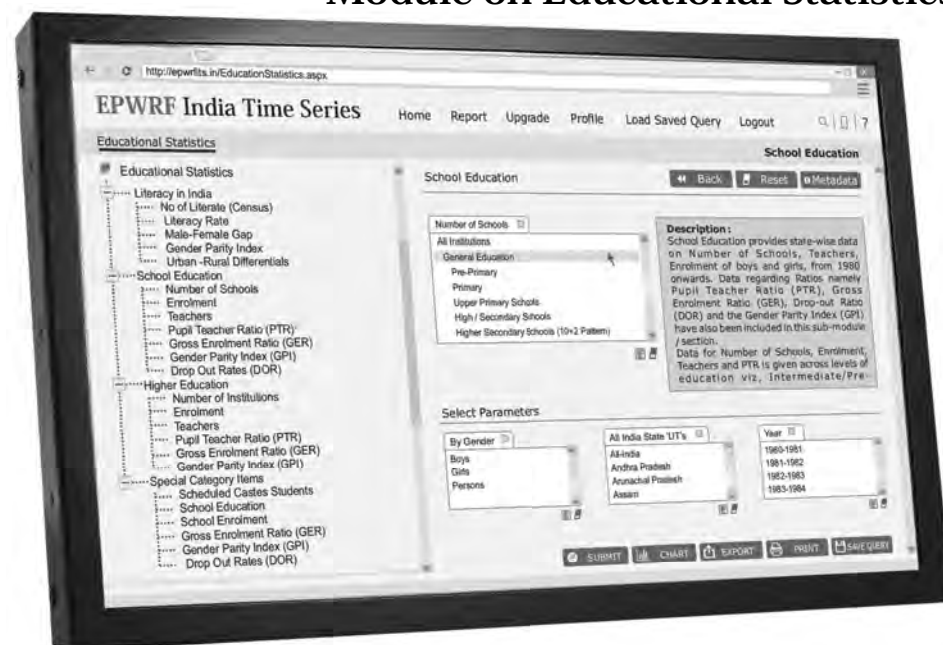
NOTES

- 1 The data has been taken from the National Health Profile and is cross-verified with the *Statistical Year Book India*.

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Debt, Wealth and Climate

Globally Coordinated Climate Authorities for Financing Green

AHMET ÖNCÜ, T SABRI ÖNCÜ

Based on the German Currency Reform of 1948 and the “Modern Debt Jubilee” of Steve Keen, a globally coordinated orderly debt deleveraging mechanism is proposed to address the global debt overhang problem is proposed. Since the global debt overhang and lack of sufficient climate finance flows are interconnected, Climate Authorities are added to the mechanism to discuss how this may help to improve the situation is discussed.

In a recent article (Öncü and Öncü 2019), we proposed a globally coordinated debt deleveraging mechanism with a climate component to address the global debt overhang problem. And a few days after we finished that article, on 14 November 2019, the Institute of International Finance (IIF) issued a warning in its *Global Debt Monitor Report* that “[h]igh debt burdens could curb efforts to tackle climate risk.” The IIF (2019) wrote

Global climate finance flows remain far short of what’s needed for an effective transition to a low-carbon economy. Total global issuance of sustainable loans and securities to date amounts to slightly over \$1 trillion: for context, the IPCC estimates suggest that an average of \$3.5 trillion (\$3 trillion) in 2010 US dollars is needed annually to prevent global temperatures from increasing 1.5 (2.0) degrees Celsius by 2050. To achieve this goal, public and private climate finance flows will have to be scaled up rapidly.

According to the IIF (2019a), global debt reached an all-time peak of about \$250.9 trillion in the first half of 2019, and at a total of about \$121.4 trillion, the debt of the non-financial private sector comprising households and non-financial firms is its biggest component. However, we should not fall into the fallacy of division. As the United Nations Conference on Trade and Development (UNCTAD) 2019 report documents, while in developed and high-income developing countries, the non-financial private sector is more over-indebted, in middle-income and low-income developing countries, the public sector is more over-indebted (UNCTAD 2019). Therefore, the high debt burdens that could curb efforts to tackle climate risk are neither only private nor only public, but both.

Based on the International Monetary Fund (IMF) Global Debt Database (GDD) comprising debts of the public and private non-financial sectors for an unbalanced

panel of 190 countries dating back to 1950, Mbaye et al (2018) find that whenever the non-financial private sector consisting of households and firms is caught in a debt overhang and needs to deleverage, governments come to the rescue through a countercyclical rise in government deficit and debt, and that this is not just a crisis story but a more prevalent phenomenon that affects countries at various stages of financial and economic development. Mbaye et al (2018) then conclude that if the non-financial private sector deleveraging concludes with a financial crisis, “this other form of bailout, not the bank rescue packages, should bear most of the blame for the increasing debt levels in advanced economies,” and note that their results suggest that private debt deleveraging happens before one can see it in the non-financial private debt to gross domestic product (GDP) ratio.

Furthermore, the IIF numbers are based mainly on loans and debt securities. The IMF GDD all instruments¹ data available for 45 of the 190 countries imply that these numbers grossly underestimate the actual debt stock of the non-financial private sector. Given that the world GDP was about \$85 trillion in 2018, the global non-financial private sector debt to GDP ratio must be way above 150%. At this level of debt overhang, a global non-financial private sector debt deleveraging is inevitable. This means that the public sector debts of the developed and high-income developing countries will also go up. As the ongoing non-financial private sector deleveraging in the developed and high-income developing countries deepens, unless we face what is coming in an orderly fashion, a deep global recession will ensue, further constraining the governments’ ability to spend on climate change-related projects for many years to come, and our hopes to make the necessary investments and innovations to address the now existential climate crisis on time will diminish.

And despite this, although other than the extreme right-wing and sections of some industries that have vested interests in carbon-based fuels, no one denies the need for tackling climate risk, there is no serious discussion of the need for

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restructuring these debts among those who acknowledge the risks associated with climate change. They appear unaware of how these unpayable debts and insufficient global climate finance flows are interconnected. For example, although it received an A+ and ranks the first among the climate plans of the United States 2020 presidential candidates according to the Greenpeace, the Democratic candidate Bernie Sanders' Green New Deal Plan mentions the word "debt" only once, and in a totally different context.

A Proposal

Our proposal is a variation on the "Modern Debt Jubilee" of Keen (2017), which is a "helicopter money" proposal in the sense that Keen proposes a direct injection of the state-created money into the personal bank accounts of the residents. The main deviation of Keen's proposal from other "helicopter money" proposals, such as those of Wolf (2014) and Turner (2016), is that it is a blend of "helicopter money" and debt reduction: make a direct injection of the state-created money to all private bank accounts, but require that its first use is to pay down debt.

Keen's proposal avoids two problems. The first problem is that debt forgiveness favours debtors over savers, but since everyone gets the same amount of "helicopter money," there is no discrimination against the savers in his proposed jubilee. The second problem he avoids is that without forcing the debtors to use the "helicopter money" first to pay down debt, the "helicopter money" need not reduce the level of personal debt of the households.

One shortcoming of "helicopter money" proposals, including Keen's, is that they all focus on the household sector. However, IIF (2019) and UNCTAD (2019) indicate that the current global debt overhang is way beyond a household sector debt overhang. With this in mind we blended Keen's "Modern Debt Jubilee" with the German Currency Reform (GCR) of 1948, which reduced all debts. Further, since the less affluent keep most of their savings in saving accounts whereas the more affluent in financial and real assets, as is the case in almost every country these days, we left the

deposits intact to protect the less affluent, although the GCR of 1948 cancelled 93.5% of the deposits.

The original plan of the Allied powers occupying the western zones of Germany, the United States, the United Kingdom, and France, consisted of (i) conversion of currency and all debts at a ratio of 10 Reichsmarks for one Deutschemark, leaving payments, including wages, rents, taxes, and social insurance benefits, as well as prices other than those of debt securities intact, and (ii) a fund built with a capital levy for the Lastenausgleich (equalisation of burdens), which would correct part of the inequity between owners of debt, and owners of real assets and shares of corporations. Had that happened, the balance sheets of all financial institutions would have remained unimpaired, assuming no bad debts. However, the actual GCR deviated from the planned GCR in that it required all financial institutions to remove from their balance sheets any securities of the Reich and cancel all accounts and currency holdings of the Reich, and of a few others, which impaired the balance sheets of nearly all of the financial institutions (Bennet 1950).

The solution the GCR offered was the equalisation claims: "Financial institutions to receive state equalisation claims to restore their solvency and provide a small reserve if either or both were impaired by these measures" (Bennet 1950). The equalisation claims were interest-bearing government bonds of the then non-existing government and had no set amortisation schedules. They were just placeholders on the assets side of the balance sheets to ensure that financial institutions looked solvent. They later became bonds of the Federal Republic of Germany, established on 23 May 1949.

The equalisation claims were used for the second time in 1990, during the German reunification, because unified Germany also faced a severe balance sheet problem in the financial sector, again resulting from unequal conversion of assets and liabilities. The equalisation claims are well-tested, and historians have found no evidence that the equalisation claims imposed any long-term negative repercussions on either the

viability of financial markets or economic growth (van Suntum and Ilgmann 2013).

The Lastenausgleich Law was passed after the establishment of the Federal Republic of Germany. Effective from 1 September 1952, it increased the compensation of the savers by an additional 13.5% so that their loss was reduced to 80%. The law also imposed a nominal 50% capital levy on capital gains, but allowed payment in instalments over 30 years, making the levies merely an additional property tax rather than a wealth tax.

Deleveraging, Lastenausgleich and climate authorities: We proposed two authorities in each country: a deleveraging authority and a Lastenausgleich authority. We also proposed to establish a multi-currency "Global Climate Fund" under the UN and allowed to maintain deposit accounts at the central banks of all countries. But, if the Green Climate Fund (GCF) already under the United Nations Climate Change (UNFCCC) is any indication, such a fund cannot exist without national authorities representing their governments. There are such authorities in the GCF.

Therefore, there would be three authorities to maintain a deposit account at the Central Bank in each country: A deleveraging authority for leverage reduction, Lastenausgleich authority for capital levies, and a climate authority for financing needs in developing national climate plans. But since debt forgiveness and capital levies for the equalisation of burdens in a single country would lead to a capital flight to tax havens, the efforts of the national authorities must be coordinated globally.

Given their mandates, the GCF under the UNFCCC, the Financial Stability Board (FSB), and the UN Economic and Social Council (ECOSOC) could coordinate the efforts of the national climate authorities, deleveraging authorities, and Lastenausgleich authorities, respectively. Indeed, there already exists a tax committee in the UN ECOSOC, and there have been proposals to turn it into an inter-governmental tax body within the UN ECOSOC. Further, the global coordinator of the national Lastenausgleich authorities should consider the creation of a central

database on worldwide ownership of financial assets, that is, a “global financial register,” that Thomas Piketty and Gabriel Zucman have proposed. The Independent Commission for the Reform of International Corporate Taxation (ICRICT) expanded the idea to a “global asset registry” (ICRICT 2019), and Stiglitz, Tucker, and Zucman (2019) further expanded it to a “global wealth registry.” The more comprehensive is the registry, the better it would be for the equalisation of burdens.

The Lastenausgleich authority would be under the finance ministry, whereas the Deleveraging and Climate Authorities would be non-profit corporations promoted by the government. The government would capitalise the Deleveraging and Climate Authorities by the Treasury issued zero-coupon perpetual bonds, that is, our proposed equalisation claims. The Deleveraging Authority would then sell its equalisation claims to the Central Bank in exchange for an increased balance in its deposit account at the Central Bank while the Climate Authority would wait until the deleveraging concludes. Further, the Climate Authority would not be allowed to open deposit accounts to its borrowers to ensure that it would be a pure financial intermediary, not a bank, although it has the privilege of maintaining a deposit account at the central bank.

Deleveraging process: We assume that a globally agreed-upon debt reduction percentage that would bring the global non-financial sector leverage well under 100% is determined, and that all countries agreed to act simultaneously. Under these assumptions, the mechanism is: (i) the financial institutions comprising the banks and non-banking financial institutions (NBFIs) write down all the loans and debt securities on both sides of their balance sheets by the required percentage, (ii) the Deleveraging Authority compensates the banks and NBFIs for the loss if any, and (iii) the Deleveraging Authority pays each qualified resident their allocated amount less the debt relief if any. Since our percentage-based debt reduction proposal is equivalent to the Deleveraging Authority purchasing

a portion of each of the loans and debt securities and cancelling the purchased portions, there is no violation of any of the loan and debt security contracts in our proposed mechanism.

Given that almost all corporations in all countries are debtors, there should not be a need to pay any amount to corporations. Further, it is possible for some NBFIs after the above debt reduction that their liabilities go down more than their assets, and they gain. When a gain happens, the institution should owe equalisation liabilities to the Deleveraging Authority of its jurisdiction. Note that equalisation liabilities are not novel either as they were used during the German Reunification of 1990. We propose that the national deleveraging authorities should independently determine the interest rates of the equalisation liabilities based on the prevailing government interest rates in their countries. We should also mention that as all debts mean all debts, public sector debts will also be written down by the same percentage. Hence, our deleveraging mechanism addresses the public sector debt overhang also. One exception is the official debts of the sovereigns that fall out of the scope of our proposed mechanism. Official debts should be handled by other means.

Even if the above deleveraging materialises, it is likely that there will remain some bad debts to be resolved in

many countries. If that happens, the Deleveraging Authority could then purchase the bad debts at their book values less the provisions from the impaired financial institutions with the funds in its central bank account to resolve through asset management companies (AMCs) it establishes and, in addition, may invite private AMCs. While personal and small and medium-sized enterprise debts that cannot be paid would be cancelled fully, other debts should be subjected to usual resolution procedures such as the ones detailed in the “Key Attributes of Effective Resolution Regimes for Financial Institutions” document of the FSB (2014).

After the Deleveraging

After the deleveraging, the balance of the Deleveraging Authority account at the central bank goes down and the total balance of the bank accounts at the central bank, that is, reserves go up by the total payment the Deleveraging Authority made. Hence, the base money goes up by the total payment of the Deleveraging Authority. Since NBFIs and residents cannot maintain deposit accounts at the central bank by law and, therefore, cannot be paid in reserves, they have to be paid through a bank which creates deposits for the NBFIs and residents against reserves. Hence, the broad money goes up by the amount of the payment to the NBFIs and residents.

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One issue is that in many countries, the bank and NBF1 balance sheets are multi-currency balance sheets. However, the Deleveraging Authority payments are in domestic currency, which may create currency risk for some banks and NBF1s. Backed by the central banks, the globally coordinated national deleveraging authorities should stand ready to intervene to avoid potential crises. Furthermore, capital controls should also be considered to curtail the surge in capital outflows, to reduce illiquidity driven by sell-offs in developing country markets and to arrest declines in currency and asset prices.

The authorities would require their domestic banks and other financial institutions to spend an internationally agreed-upon percentage of their newly found money, if any, after the deleveraging on the interest-bearing, finite-maturity climate bonds the national climate authorities would issue. Since the promoter of the Climate Authority is the government, the climate bonds would have the same credit with the government bonds, and the Central Bank would accept the climate bonds in its open market operations.

Therefore, the Climate Authority bonds backed by the funds in its Central Bank account and the green loans it would make, would be one of the tools to manage the reserves and, although to a lesser extent, the deposits created through the equalisation claims. In addition, the climate bonds could be used for the greening of the financial system through the investment of foreign exchange reserves of the central banks the Bank of International Settlements (BIS) proposed (BIS 2019).

A second tool to manage the reserves and deposits created through the equalisation claims, a form of which Coppola (2019) also proposed, could be that the Central Bank issues its interest-bearing finite-maturity bonds backed by the equalisation claims for sale in the market and also for its open market operations.

A third tool could be the loan-to-deposit ratio restrictions on the banks' credit extension to manage the liquidity in the economy. The loan-to-deposit ratio restrictions have been employed in many countries and two important examples are China and India, although effective from 1 October 2015, China abandoned

the 75% loan-to-deposit ratio requirement on banks—which was enacted into law and put into effect in 1995—on 29 August 2015, to bolster lending as the Chinese economy started to slow down in 2015.² However, the loan-to-deposit ratio requirement, called the statutory liquidity ratio (SLR) requirement, is still in effect in India. The SLR requirement can be met not only by holding reserves but also by holding gold and government-approved securities (see Öncü, 2017 for details). The current SLR requirement in India is 18.5%, and the aggregate loan-to-deposit ratio of the Indian banking system is about 77.5% in November 2019.³

Lastly, equipped with a “global wealth registry,” the Lastenausgleich authorities would collect progressive wealth taxes from the owners of real and non-debt financial assets for the equalisation of burdens. While a part of these taxes could be used to retire some of the equalisation claims and the corresponding reserves and deposits created in the deleveraging process, another part could be transferred to the climate authorities, and the rest could be spent in the interests of the society such as on healthcare, elderly care, education, and public transportation, to name a few.

Debt relief, inevitable though it may be, is not enough. All it would do is to give the world a break, after which another speculative debt bubble will form. Under the existential threat of climate change, we must take extraordinary measures to break up this cycle of excessive debt built-up before it is too late. The Lastenausgleich and Climate Authorities could be among the other measures.

[Note: We completed this article two months before the coronavirus crisis that started in January 2020. Although we present the article as is, the Climate Authority we propose can be expanded to meet the funding needs of fighting the Corona Virus Disease by issuing not only climate bonds but also corona bonds. The Deleveraging and Climate Authorities of this article are no different than any of the special purpose vehicles such as the Primary Market Corporate Credit Facility or the Term Asset-Backed Securities Loan Facility the Fed introduced on 23 March 2020 in its response to the Coronavirus Crisis.⁴ Our proposal can be combined with the 30 March 2020 United Nations call for \$2.5 trillion Coronavirus Crisis package for developing countries to provide funding for the debt jubilee of distressed economies.⁵]

NOTES

- 1 <https://www.imf.org/en/Publications/WP/Issues/2018/05/14/Global-Debt-Database-Methodology-and-Sources-45838>
- 2 <https://economictimes.indiatimes.com/news/international/business/china-removes-75-cap-on-loan-to-deposit-ratio/articleshow/48724491.cms?from=mdr>.
- 3 <https://www.thehindubusinessline.com/opinion/indian-banking-continues-to-be-metro-centric/article30069880.ece#>.
- 4 <https://www.federalreserve.gov/newsevents/pressreleases/monetary20200323b.htm>.
- 5 <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2315>.

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Post-harvest Management and Farm Outcomes

Storage Facilities Matter

RUCHIRA BOSS, MAMATA PRADHAN

An evaluation study across Bihar, Uttar Pradesh, and Odisha, finds that post-harvest management of crops plays a crucial role in both value generation as well as value distribution along crop value chains, by mitigating post-harvest losses, in the main. However, while post-harvest loss is an undeniable constraint to farm income in India, the role of post-harvest management is more complex, and its implications go well beyond merely arresting post-harvest losses.

Over the past two decades or so, India's food system has been transitioning with a declining demand for cereals and pulses and increases in the demand for high value horticulture and livestock products with rising incomes, urbanisation, and female labour force participation. Farmers, in this demand-led system, however, have not received commensurate benefits from this transition, leading to an increasing rural–urban divide. Value chains remain poorly developed, in terms of storage facilities at the farm level, transportation, and food processing units, especially in case of the perishables. Due to this, farmers incur higher losses compared to wholesalers, processors and retailers. Indian agriculture seems to have hit the frontier in intensive margin.

Over time, the government has introduced several schemes to lift the rural economy. The agriculture sector, in the recent years, has seen successive central- and state-promoted schemes like Mantri Kisan Samman Nidhi, National Agriculture Market (eNAM), Pradhan Mantri Krishi Sinchayee Yojana, and Pradhan Mantri Fasal Bima Yojana to boost farmers' outcomes. In 2016, the Government of India also stated its goal of doubling farmers' income by 2022.

Notwithstanding the policy thrust, the agriculture sector has, by and large, shown a lackluster performance with a meagre 2.9% growth rate during 2014–15 to 2018–19 (GoI 2019–20). Farmers' incomes have fallen progressively below that of the non-farm sectors. Most farmers in India remain stuck in a low-income trap. In 2015–16, about 68% farmers with marginal landholdings earned an annual income of ₹33,636 from farming, which translates into a monthly income of ₹2,803, which is barely one-fifth of the national average (GoI 2015–16). Further,

between 2014 and 2016 period, the farm revenue fell by 6% per year because of low market prices (OECD/ICRIER 2018).

While several reasons—ranging from fragmentation of landholdings, lack of public investment, plateauing of technological gains, to underdeveloped and fragmented agricultural markets—frequently come up as the factors contributing to farmers' low incomes, an important aspect that receives rather inadequate attention in the literature is the role of post-harvest management (PHM) in determining farmer income.

Much of the existing literature on PHM focuses on its role in reducing post-harvest losses, which indeed affect farmers' returns. However, in mitigating these losses, PHM works in more complex ways that go beyond merely arresting post-harvest losses. By empowering farmers in choosing the time and location of sales, influencing the product quality, fostering product differentiation and, hence, better price discovery, PHM plays an important role in both value generation as well as value distribution.

What Is PHM?

After production, agricultural produce undergoes a series of post-harvest operations, handling stages and storage before they reach the consumers. Each post-harvest stage results in some losses and has an effect on the value distribution. These are the factors that determine the gap between consumer and farmer prices of a product.

Post-harvest food is one of the many direct ways in which value distribution between the consumer and producer is affected. This is defined as the measurable quantitative (decreased weight or volume) and qualitative (unwanted changes in the cosmetic features of food and reduced nutrient value) losses along the supply chain that can occur at any stage, starting from the time of harvest till the end uses (Hodges et al 2011; De Lucia and Assennato 1994; Buzby and Hyman 2012). Such losses can reduce the value of the produce below its market value (Hodges et al 2011).

An assessment of crop losses conducted by the Indian Council of Agricultural Research in 2016 revealed that about

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3.9% to 6% cereals, 4.3% to 6.1% pulses, 2.8% to 10.1% oilseeds, 5.8% to 18.1% fruits, and 6.9% to 13% vegetables were lost during harvesting, post-harvesting activities, handling and storage (Jha et al 2016). On the other hand, as per the estimates of the Committee on Doubling Farmers' Income (2019), at the all-India level, farmers are unable to sell about 40% of the total fruits and vegetables produced in the market or lose around ₹63,000 crore every year for not being able to sell their produce for which they have already made investments (Pandey 2018).

With about 80% of the Indian farmers being small and marginal, the post-harvest losses have first-order effects on them. Beyond post-harvest losses, poor storage facilities compel smallholder farmers in India to sell their produce at low prices soon after the harvest. On the other hand, quality and quantity losses due to poor storage, of particularly the high value crops, has possibly been the major contributor of low farmers' income and seasonal food deficits at the household level. Simultaneously, with storage facilities per se and PHM in general, the possible stranglehold of the middlemen and traders can be weakened by empowering the farmers in terms of their choice of markets.

Case of TARINA and PHM

To address the issue of losses and weak bargaining power of the farmers, the Tata-Cornell Institute, under its flagship project Technical Assistance and Research for Indian Nutrition and Agriculture (TARINA), introduced post-harvest interventions in various states of India, namely Bihar, Odisha and Uttar Pradesh (UP). The study explored various pathways to examine the impact of PHM interventions on farmers' welfare and how it is reflected in farmers' choices and outcomes. The objective was to move away from the technical issue of food losses per se to economic losses, while understanding that the former is nested in the latter.

Data and methodology: The intervention was carried out in four districts, namely Munger in Bihar, Kandhamal and Kalahandi in Odisha, and Maharajganj

in UP. There were 450 households in the treatment group and 450 households in the control group in each of the four districts of the three states. It was ensured that, on an average, the household characteristics of both the groups were similar, and that the treatment and control groups reacted similarly to the intervention. For instance, among other indicators, the socio-economic profile of the households was considered. Both the treatment and control groups fared similarly on these indicators and therefore would have had similar responses to the intervention.

A baseline survey of 3,600 households was conducted in 2017 and an end line survey of 3,275 households, with an approximately 10% attrition rate, was conducted in 2019 to assess the impact of the intervention. Attrition was due to either migration, or households not available during the time of the surveys. There was no random assignment of beneficiaries, in order to assess the causal relationships, and a double difference propensity score matching (PSM) across two time periods has been used in the study. The analysis also includes multivariate regressions on the matched sample.

As part of the intervention, households who were a part of the treatment

group were provided with PHM technologies and demonstration on application of these technologies. Many households were given training on best practices for cleaning, sun-drying and storing of grains. These trainings were like the Krishi Vigyan Kendra's archetype, where farmers are provided with trainings and on-field demonstrations about the latest technologies in agriculture.

Different types of PHM technologies were distributed to households depending upon their farm produce. Some households were provided with a single technology while some were given a combination of technologies. Largely distributed PHM technologies included grain-pro bags or hermetic bags, with a combined storage capacity of 70–75 kilogram (kg) per bag of crops, such as pulses (chickpea and lentils) and wheat. In some locations, multigrain threshers (both power and pedal operated) and spiral graders for cleaning and grading of pulses and grains were also introduced. This was done to assist the farmers in creating value for their produce right at the farm level. Other PHM technologies and equipment included moisture meters, metallic storage bins, solar driers, and vegetable stands among others. A total

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of 13 PHM technologies and equipment were distributed to households in the four intervention districts of TARINA.

Storage Loss Matters

With the focus on storage practices as part of post-harvest intervention, Table 1 presents the economic effects of post-harvest losses—the reduction of which is the quintessential target of PHM. Most of the post-harvest technology (PHT) that we examine in our project is related to storage. Hence, the point that we emphasise here is that storage loss has material consequence, and thus forms the basis for our storage-based post-harvest intervention. The questions that we explore are: how important is storage? and, what is the importance of storage failure that would make a case for storage-based intervention?

Table 1: Effects of Storage Loss

Variables	Paddy (HH Expenditure)	Green Gram (HH Expenditure)
Interaction term (access to storage * storage loss in 2019)	-139.504**	-317.139**

Controlled for HH-head-gender/HH-age/HHsize/caste/occupation/land/kisancard/rationcard/livestock.

*** p<0.01, ** p<0.05, * p<0.1.

Source: Authors' estimate.

Here, in terms of farmer outcomes, we examine the household expenditure as a measure of welfare. Since we are examining the rural households, variability in income and its sources mandates proxying household income with household expenditure. Taking household expenditure as a marker of household welfare, in two commodities, that is, green gram as well as paddy, with storage loss, there is significant reduction in household income (proxied by expenditure) (Table 1). Hence, there is a basis for PHM from a welfare standpoint. In per capita monthly expenditure, post-harvest loss is associated with a reduction in household expenditure to the tune of ₹317 per individual, that is, about ₹1,600 at the household level assuming an average family size of five.

The interaction term is the variable capturing the impact of storage. Assessed as the impact of storage on the treatment group (income/expenditure of the treated farmers), conditional on storing in the end-line period, the interaction

term captures the treatment effect on the treated.

PHM and Farmers' Outcomes

Since storage loss has a material consequence for the farmers, we examined its effect on the price realisation of the farmers. How do the farmer outcomes differ in terms of improving the bargaining power across space and time?

An a priori assumption is that with improved PHT like storage, farmers can store optimally with flexibility in marketing in terms of when to sell, thus supplying the produce as and when the market demands. This can minimise distress selling in which the farmers get a raw deal. PHT thus helps farmers to explore markets and optimise the timing of sales to get optimum prices. This, thus, translates into better price realisation and higher income.

The impact of PHM can be gauged by comparing treated farmers with the control farmers. With two periods of data, we use double difference PSM and regression on the matched sample to assess the impacts on household incomes. Notwithstanding the roles played by crop-specific factors in estimating an impact and the fact that it does not work uniformly for all crops, in Table 2, we present the estimate of causal impacts for only three commodities, namely, wheat, pigeon pea and potato. Given that storage leads to better price discovery, we find that household expenditure is higher for those who adopt storage-based PHM practices in the case of wheat, pigeon pea and potato.

Table 2: Storage Intervention and Farmer Outcomes

Variables	HH Expenditure		
	Wheat	Pigeon Pea	Potato
*Interaction term (storage/PHM farmers *stored in 2019)	180.736***	136.357**	238.706***

Controlled for HH-head-gender/HH-age/HHsize/caste/occupation/land/kisancard/rationcard/livestock, etc, ***p<0.01, **p<0.05, *p<0.1.

Source: Authors' estimate.

Particularly, we want to make a point for potato. Potato is a perishable crop and its storage is very important since it has significant issues, including the choice of markets and the optimal timing of sales.

The study thus attempted to test the hypothesis whether investment and improvement in PHTs like storage helps farmers to mitigate losses and improve

their economic gains. Results from the study show that when farmers can use PHTs like storage bags and drums and are able to apply post-harvest loss management practices, there are positive outcomes. These outcomes are in terms of positive impacts on farmers' price realisation.

In the project locations, farmers who applied PHM practices for crops like wheat, potato and pulses like pigeon pea, lentils and chickpea witnessed some association for higher price effect. Though the order of magnitude of price effect ranged from just ₹4–₹5 per quintal, it does reveal the price effect pathway for storage-based post-harvest practices (PHPs). This was largely due to the improved PHPs and storage technology, which helped farmers in improving their bargaining power and timing of sale. Farmers who stored paddy for at least a week, largely refrained from distress selling and fetched better prices, compared to the ones who did not store. In the case of wheat, pigeon pea and potato, though households experiencing storage loss tend to be characterised by lower household expenditure, the effects are statistically not significant.

Way Forward

The prototype in this study characterises most of India, where 60%–70% of the foodgrains produced is stored at the household level in indigenous storage structures (Kanwar and Sharma 2003). Farmers with limited resources, use locally available raw materials to develop

traditional structures differing in design, shape, size and functions. The material used includes paddy straw, wheat straw, wood, bamboo, reeds, mud, bricks, cow dung, etc, depending on the geographical location. These traditional storage structures do not guarantee protection against major storage pests, deterioration, shrinkage, spoilage, moisture and time (duration), leading to a high percentage of grain losses (Channal et al 2004).

In the case of perishables, approximately 370 million tonnes of perishable food at the risk of wastage, with only 10% receiving cold-storage facilities (Biswas 2014).

In a storage facility, perishables require cleanliness, optimal temperature, space and regular monitoring. Most small and marginal holder farmers are not able to afford these sophisticated technologies, leading to high food and income losses.

This article looks at the role of storage facilities in understanding the impact of post-harvest loss management on farmers' economic welfare. Lack of proper storage infrastructure and technology, along with the absence of market information, leads to distress selling by farmers. Improper handling of the produce also causes damages and affects the quality of the produce, which can result in significant post-harvest losses (Kasso and Bekele 2016). PHM entails minimising losses, maintaining better quality, thereby leading to better product differentiation. Only when product differentiation exists, farmers can realise a higher price for the same volume of the produce.

Intuitively, farmers can benefit only when the wedge between the wholesale and retail prices is reduced. This will happen by enhancing the bargaining power of farmers in terms of optimisation of timing and the market for sales, and

hence, better price discovery. Thus, PHM leads to farmer empowerment in terms of improved time of sale, flexibility in marketing and scouting for better markets that could translate to higher income, thereby supplying produce as and when the market demands.

This article suggests that technical issues like food loss is nestled in the economic issue of farmers incomes and overall welfare. Thus, there is a need for proper assessment of farmers' risk-taking behaviour for policies and investments in technologies and practices for mitigating post-harvest loss, which will drive efficiencies across the entire value chain, leading to improvements in farmers' income. It can be said that as market forces move towards creating more differentiation, the movement towards greater use of post-harvest systems should gather pace.

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Trump's Policies and Billionaire Indian Dreams

ROMAR CORREA

This is the second book by Ignatius Chithelen (IC, hereafter), the first being his bestselling autobiography. IC is a trained social scientist and journalist and both sets of skills are on impressive display in this book. Being a member of only the first club, I will succumb to the habit of embedding the work into some social scientific categories, slapping on a reference or two. Also, I will bend the sequencing of the chapters keeping my narrative in mind.

Workers and the Ruling Classes

IC's thesis is simple. Due to forces at work in the United States (US) and India, Indian entrepreneurs are not welcome in both countries. In response, Canada and China are breaking down the walls into their countries.

Earlier, and later in Appendix C in the book, IC describes one jaw of the pincer in which Indian workers are grasped: the rise of Narendra Modi and the Rashtriya Swayamsevak Sangh (RSS) as the ruling forces, with the Bharatiya Janata Party (BJP) as its parliamentary arm. In 1939, Golwalkar wrote of the purity of nation and culture, of the differences between races and cultures to be cut at "the root" and be assimilated into one. The BJP is forged from the disciplined organisation of the RSS comprising several million stormtroopers, hierarchically arranged from a base of an excess of 60,000 units. The ideology is spread through student organisations, trade unions, teachers, the intelligentsia, industrialists, overseas Indians, and retired army personnel. However, most Hindus, especially those belonging to the lower castes, continue to keep their distance from the ideology.

The edifice rests on the foundation of poverty and the agrarian crisis in India, which are captured in two characterisations. In Appendix B, we are told that

BOOK REVIEWS

Passage from India to America: Billionaire Engineers, Extremist Politics & Advantage to Canada & China by Ignatius Chithelen, *Bryant Park Publishers LLC, New York, 2018; pp 212, \$40.95 (hardcover).*

India boasts of the largest number of stunted children in the world. The reason is chronic malnutrition. By the time the child is two years old, the problem is irreversible. Stunting is connected with malformed brains and causes irremediable harm, like limiting mental abilities and learning, and diabetes, hypertension, obesity, and a host of chronic diseases. According to the United Nations Children's Fund, around 70% of adolescent children in India are anaemic. Anemia affects future pregnancies and children.

The second aspect is farmer suicides. In addition, farming in India is inefficient and wasteful. A third of the food rots. India is the second largest producer of vegetables in the world. Yet, its exports account for only 1% of the global trade. The widely known explanation is that India has less than a sixth of the number of refrigerated trucks and only 1% of the cold storages needed to preserve food and vegetables in transit. Only 4% of the food in India moves through cold chains compared to 70% in the United Kingdoms (UK).

Land use for farming in India is high because of the density of population and the demand for food. The productivity of farms in India is notoriously low scale is suboptimal. Big farms in India are not big enough to use tractors, harvesters, sprinklers, satellite-based mapping systems and other techniques to increase productivity. Funds-pseeking outlets in infrastructure and development projects look for countries that are not riven by strife. In India, small traders, informal workers, and big businesses live and

work in an atmosphere of fear and trepidation. The objective to attract \$500 billion to create a planned increase in jobs is chimerical with an increase in lynchings supported by the organs of the state and proudly publicised.

Crises of Capitalism

I am motivated to step back and reflect on the ordering of the processes in history. For the purpose, the classics by Leon Trotsky are chosen for their luminosity as well as their programmatic resonance. Trotsky would view the tumult described in the book as reflecting the "organic" unity in fascism between a mass movement and the crises to which a decrepit capitalism is prone. The frequency and severity of breakdowns in the long downward spiral of his time are mirrored in the secular stagnation of our times. In Chapter 2, IC traces the crash of the labour market from the bursting of the internet bubble in 2000. Many information technology (IT) personnel were thrown out of work. The recession of 2001–08 followed. The attrition of skills and morale brought about by regularly being handed pink slips is irreversible. The long-term solution adopted by American companies to preserve their bottom lines is automation.

Second, they exploit Indian labour in the classical fashion. The wages offered by American companies to Indian engineers dominate domestic wages by multiples. Indian workers give themselves to contracts where the sword of the visa is always hanging over their heads. The problem is made intractable as, due to natural self-interest and preservation, visa cuts are supported by American associations of engineers and IT professionals as well as some Democratic party leaders. The value of competition notwithstanding, when an Indian worker, having applied for a green card, resigns from their job and joins another company, their file is shoved to the end of the pile of applicants. Since social security payments are deducted from their wages, such cuts from employment enrich the coffers of the social security system by several billion dollars each year.

In Chapter 6, IC identifies the disequilibrium in the market for engineers and us President Donald Trump's policies. The mismatch in quantity as well as skills has only been augmented. Both were at play in the loss of 2,00,000 IT and engineering jobs in India. There is no demand even for Indian Institutes of Technology (IIT) graduates. The domestic IT market is tiny. In addition, Indian companies are facing stiff competition from their American counterparts. Besides, there is a distorted incentive and specialisation process at work. Mechanical and other engineering students join their computer and electrical engineering classmates in honing their IT skills. When the industry crashed in 2017, these graduates could not find work because there was no alternative employment in mechanical or chemical firms.

Finance Capital and Class Dynamics

Three classes are at play in Trotskyist terms. These are the big bourgeoisie, the petty bourgeoisie, and the proletariat. The first and the last are in classic conflict. The minuscule big capitalist class needs the support from the second set whose limits are the slum proletariat at one end and the "upper" middle class at the other. In the preemptive strikes of fascism, new leaders are coronated from the dispersed and feckless members of "the new middle class." Local thugs set about consolidating disparate and rootless elements and cobbling together combat detachments in service of the fascist regime. At the same time, the need for an overarching leader is felt, from one class or the other.

I cannot match Trotsky's description of "National Socialism" here.

Naive minds think that the office of kingship lodges in the king himself ... As a matter of fact, the office of kingship is an interrelationship between people. The king is king only because the interests and prejudices of millions of people are refracted through his person. (Trotsky 1971: 399)

A contradiction resides in the fact that as finance capital captures the means of production, it cannot provide livelihoods to the people. Financial contracts get more elaborate at the same time as they

get written on a diminution of the sphere of production and employment. In the end, the law of value will hold and crises will become deeper and more frequent.

Puppeteered by the silken threads of big finance capital, the wrath of the middle class is diverted away from the source of its deprivation, to the working class. Also, the second and the third classes interpenetrate. The reserve army of the working class provides petty traders and hawkers, while the bankrupt members of the middle classes swell the ranks of the proletariat and the lumpenproletariat. The basic definition is underlined. The dictatorship of finance is not the same as fascist dictatorship. The upward spiral of finance must coexist with the support of fascism by farmers, small businessmen, and the unemployed who have given up hope. The ultimate objective is the exploitation of labour power and destruction of potential worker control of the production process.

The assault on liberty is sinister because it is ubiquitous.

The adversary threatens to become unconquerable; he is everywhere and nowhere. He bobs up in factories and in schools, he penetrates into historical journals and into all textbooks. This means that facts and documents convict the bureaucracy, exposing its vacillation and mistakes. One cannot calmly and objectively recall the bygone day, one must remodel the past, one must plaster up all the cracks through which suspicion might leak out as regards the infallibility of the apparatus and its head. (Trotsky 1971: 222)

Once victorious, finance capital tightens its grip on the institutions of sovereignty, the executive and the legislature, educational institutions, and the press. Nothing draws its ire more than the democratic order. The historic function of fascism is to smash the working class and thwart human freedoms when the capitalist class finds it impossible to fashion the democratic machinery to its own ends. As a last refuge, "dissertations on the nation ... in general constitute, under such conditions, the most impudent lying" (Trotsky 1971: 363).

Impacts of Racism

Coming to the other jaw of the pincer in Chapter 5, IC shows how the home of the brave and the land of the free gets

inhospitable as racism runs amok. Opportunities for Indians to emigrate vastly reduce. American universities are slashing scholarships to foreigners as their own budgets get whittled down. IC argues that Trump's policies of cutting skilled worker student training have long-term ramifications. It will not be possible to reverse the implications for work and technological change even if the next President is liberal and democratic. For, in order to protect their activity, American companies are contending with the shortage of skilled labour of foreign workers by exporting themselves to countries like Canada.

The exchange is optimal as Canada faces a shortage of skilled manpower and an ageing population. Indeed, the country is rolling out the red carpet, especially for business and research and development (R&D) in fields like machine learning. China, as in so many things, is not far behind. The prognosis is an exodus of Indian engineers and math graduates there to further research in areas like solar panels, web-based retailing, and e-payments. China, more than any other country, would be able to effect a terminal condition of global leadership in robotics, electric and autonomous vehicles, and 3-D printing, in 2025. In principle, India and China can work to their mutual advantage. China is a source of capital. China invests a great deal in Indian start-ups that face stiff competition from American enterprises.

Prospects

In Chapter 7, Chithelen asks if it is the end of the road for Indian IT firms. In the early 2010s, Indian companies were hit by rising wages and the high turnover of employees. In part, these arose from the India operations of Microsoft, Google, IBM, Oracle, and other American and foreign companies. On the supply side, India faced a bottleneck of skilled engineering and math and science graduates. The answer to containing the wage bill was the automation of operations. The employee strategy was golden handshakes, downsizing and retraining.

The longer-term forecast for Indian IT companies is obsolescence following

upon rapid technical change. Tech businesses come and go as customers shift preferences and loyalties. The Indian IT industry profited for four decades because they were users, not creators, of technology. They survived using the new generation of computers that became simple to use and cheap but changed little in essence. In recent times, smartphones, tablets, downloadable applications enable American employees and consumers to access most services without the need for IT intermediaries.

Also, most of the IT infrastructure and back-office support have moved to cloud-based systems developed mainly by Amazon, Microsoft, Google and Oracle. American companies are up to speed with robotics, machine learning, big data analytics and other ways to substitute capital for labour, even American labour. The architecture for the task is start-ups that require large initial investments in hardware and software in contrast to the earlier model, which worked with a few smart dropouts pooling their savings and pottering about in a garage.

IC strikes home in Chapter 8 by making a tight case for the flowering of Indian entrepreneurship in the new economy. Healthcare is a case in point. Practo, for example, is a web-based service that assists patients to find information, doctors, and drugs. Start-ups in high-tech manufacturing are negligible because engineering education in India is theoretical. Technicians do not dirty their hands making gadgets. Research in industry and manufacturing in both the private and public sectors and universities is paltry. The latest equipment and blueprints must be imported from all over the world. Massive capital investments are called for, but even financial consortia are wary to lend at high interest rates for well-known adverse selection reasons.

In Chapter 9, IC explores the prospects for solar energy and wind power systems. All over the world, these spheres have been taken over by the new technology. As with any dynamic innovative process, prices fall as cheaper and more efficient storage systems are constructed. The case for solar energy in India is too

obvious to make. The “socio-technical systems” explanation of Christopher Freeman would be that the hiatus between technique and the appropriate socio-economic structure might be protracted (Louçã 2019). As with other cases, the state will have to step in to internalise the externalities and provide atmosphere and incentives in terms of horizons and returns for private-public partnerships to grow. Indian investors will need to imitate their successful American counterparts.

Capital must be patient. Payoffs will follow long gestation periods. The best intellectual capital must be offered attractive contracts with profit sharing and stock options. In artificial intelligence (AI), the reservation wage of Google, Facebook and Microsoft cannot be less than that of banks and hedge funds. Hope is found in Chapter 1, where a section on professionals-turned-entrepreneurs illustrates the risk-taking nature of Indian innovators as they take the leap from the cushiness of a steady flow of income to the hit-or-miss world of working out ideas. A later section provides evidence of the solid presence of Indians in cutting-edge technologies like cloud computing, drones, and AI. Indian venture capitalists are second to none in pushing

frontiers from social networking to the biology-computer science interface.

The canonical organisational structure today is not hierarchical but flat. Highly skilled workers are compelled to work in teams. The probability that the exploitation of the working class will lead them to organised protest grows. In the heraldic language of Trotsky, the party of “counter-revolutionary despair” must be met with an “organisation of revolutionary hope.” The original project of the working class has not gone away (Sil and Wright 2018). Only, the strategy and tactics framed under the “old capitalism” will have to be reworked for the “information age.”

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Understanding Gender in Educational Research and Practice

ANANYA PATHAK

A book so varied in the perspectives and issues that it raises, *Gender in Contemporary Education Research* is sure to become a book that academics, gender rights activists, educationist, working in the grassroots and other concerned citizens will value. In this edited volume, the editors Ratna M Sudarshan and Jandhyala B G Tilak have compiled a series of papers from leading academics, policymakers and researchers in the field of education and gender studies to produce a comprehensive and exhaustive outlook on the ways in which contemporary educational research in India has been influenced and shaped by the gender question.

The book succeeds in raising pertinent questions on how educational research and practice in India have looked at the issues of gender equity and discrimination, how gendered perspectives have impacted access to opportunity, factors determining educational development and opportunity, equity in access to education and the implications of women's education for the wider society.

While the book does inform us about the implications of research in the field and the arenas in which substantial bodies of work have already been produced, the book also makes us aware of what remains to be explored, what needs to be researched and the manner in which the present lacunas in our findings can be bridged by future research.

What makes this book an important contribution to the field of education and gender research is the fact that its premises are historically grounded and it offers the reader a wide range of perspectives. While it does look at how disparity in terms of access to education has an impact on women's participation in the job market and their access to high-paying livelihoods, it also tries to understand how traditional social institutions such as family, kinship and mar-

Gender in Contemporary Education Research

edited by Ratna M Sudarshan and Jandhyala B G Tilak (eds), Delhi: Gyan Publishing House and NIEPA, 2018; pp 436, ₹1,400.

riage restrict women's educational opportunities and how inadequate educational opportunities lead to further subjugation, poor representation in the workforces and a sustained culture of illiteracy and marginalisation among women. This volume enables us to chart out the ways in which access to educational opportunities can bring about a substantive transition in society.

In a country like ours, where education is still considered to be a luxury that only select families can aspire for and the education of women continues to be a domain where much work needs to be done, the volume provides an important collection of ideas that curate and bring together the history of educational research and its implications for gender relations in India over the last three decades.

The editors have indeed collated a volume that is not just exhaustive in terms of the pertinent issues it raises but also because it is a collection of debates, perspectives, arguments and paradigms, foregrounding methodological implications for research on the intricate issues of parity in terms of gendered access to educational opportunities and the pathways for bringing about collective social transformation.

Most of the articles that have been published as part of this edited volume first appeared in the *Journal of Educational Planning and Administration*. It would not be incorrect to say that many of the scholars who have contributed to this edited volume have a wide body of work in the realm of education and gender and this makes the book, an extremely important contribution that both documents contemporary research in the

field of gender equity and its implications for educational research and also points out to the gaps in the present research, so as to inform critical research in the near future.

Some of the most brilliantly crafted papers in the volume include "Higher Education in and for a Changing World" by Karuna Chanana, "Understanding School Attendance and Children's Work Participation in India" by Usha Jayachandran, "Gender Bias in Education among Rural Sikhs of Punjab" by Satinderjit Thind and Sushma Jaswal, "Education and Earnings: Gender Differences in India" by Jandhyala B G Tilak, and "Gender Equality Outcomes of the SSA: A Case Study" by Ratna M Sudarshan among others.

To begin with Karuna Chanana argues that although more and more women are seen in educational institutions and as participants in the workforce, the societal attitude towards women is not altering at the desirable pace. Moreover, we see how both within the physical and the social sciences, the career choices that women are largely opting for are ones that require lower levels of specialisation. Thus, we see a gender disparity not only in terms of access to higher education but also gender disparity in terms of specialisation within specific disciplines. She raises significant questions on the state's persistent withdrawal from public-funded educational institutions and its impact on access to education among both women and other disadvantaged groups. Karuna has argued brilliantly,

Although there is a lack of extensive and reliable database on higher education in India, disaggregated analysis of available enrolment statistics shows continuing inequalities. This is mainly because the number of state universities and colleges is declining since the early 1990s because state support to higher education has been decreasing. Simultaneously, the tuition fees are also increasing in the private sector as well as in the state sector in the name of self-funded academic programs and subjects. The disadvantaged, the minority and women students have to compete for a few relatively inexpensive seats in state-run system, or they should be ready to shell out the higher cost of private higher education. Moreover, the new developments have led to the devaluation of disciplines which have been the choice of women, minorities and those from the disadvantaged social groups. (p 282)

It is here that Padma Velaskar makes an important observation about the fragmented reality of the Indian education system, especially in the context of women's access to institutions of higher education. She argues in her lucid paper that while all women are part of the marginalised section of the population divisions of caste, class and religion further discriminate against them. Madhumi Bandyopadhyay asserts how children's educational experiences are strongly determined by their positions on the economic ladder and how exclusionary traditions within the system, can lead to sustained marginalisation of certain communities across generations.

Contributors Rakhee Banerjee, Pradip Kumar Sahu and Santiranjana Pal assert how crucial it is to take measures for women's empowerment. Through an intensive fieldwork in West Bengal they establish how access to education was directly co-related to guaranteed employment and thereby to financial sustenance. While they do point toward regional disparities, they establish an overall positive relation between education and employability.

Taking further the argument about how women's access to education can drastically empower them and why on the contrary a denial of such access can impact both their cultural and economic empowerment, Tilak's paper illustrates how both education and experience become significant variables in explaining bifurcations as far as women's access to well-paid jobs is concerned. Building on the human capital model he argues that public policies that promote the expansion of education and those that reduce dispersion in the population would lead to greater earnings and reduction of inequality in terms of earnings. He puts ahead the case for women's education as not only a means to their social upliftment but rather for the economic empowerment too.

In another engaging paper, authors Satinderjit Thind and Sushma Jaswal argue that while most developing countries in the world have laid major emphasis on the education of girls, societal attitudes and obligations have not allowed them to be equally represented

in both academic institutions as well as within the job market. They take up the special case of Punjab, where a series of post-independence programmes such as proactive work for the upliftment of the downtrodden castes in the social realm, the green revolution in the economic realm and gradual urbanisation accompanied by financial security for a large section of the population brought about a positive outlook towards the education of girls. However, the researchers assert that while there may be a greater acceptability of women's education in the urban centres, the rural areas still exhibit extended hostility to girls' education and see it as a wastage of both time and resources. Gender discrimination and sexist attitudes towards women's capabilities continue to bar women from accessing opportunities available for their male counterparts. Through exhaustive on-field research, the authors have found out that on top of the reasons that guardians cite for not sending their children to school are the notion that it is a wastage of monetary resources, household work, financial constraints, prevalent belief that educating girls makes their marriage difficult, absence of neighbourhood schools and the absence of female teachers in schools. The authors assert,

Prevalent social constraints, belief system, superstitions and social practices deny equal right to both the sexes. Poverty, unemployment and illiteracy threaten female survival. For removal of inequalities, based on sex discriminating practices against education of girls, attention has to be shifted to the values of society and culture instead of depending entirely on economic growth of the country or economic inputs alone. The eradication of gender discrimination cannot succeed in isolation unless it is accompanied by structural changes such as the removal of cultural barriers against women's access to education, employment and equal involvement in family decision-making. (p 223).

The other papers in this volume too contribute meaningfully to the thorough understanding and analysis of gender and its implications for education research in India. The volume comprising 18 distinctive articles tries to offer a clear picture of the multiple perspectives, research and analysis that have unfolded in the field in recent decades. What thus emerges from the volume is the nuanced

and intricate play of gender, caste, class and social location that collectively shapes attitudes towards women's education and participation in the Indian job market. The assertion that the book makes is that education continues to be a significant resource, which when utilised can bring about social transformation. However, despite its contribution to the understanding of gender and its implications for education research, the book lacks narrative continuity as the introduction by the editors does little to bridge the arguments made by its contributors. The book carries no substantial and empirically grounded work on the process of schooling, and how gendered spaces can be contextualised within classrooms. Given the fact that schools are sites for the construction of adolescent identities and the binaries of masculinity-femininity, the negligence of the area is a major drawback. The editors could have also included some thoroughly enriched theoretical or qualitative papers on gender and education. The inclusion of merely quantitative research has not allowed an integrated and holistic understanding of issues around gender inequality, sexual binaries and significant gender issues. While econometric frameworks that present analytical understanding may be needed, we cannot deny the fact that to make better sense of the complexity of gender relationships and their implications for access to education, qualitative studies can put forth a more nuanced framework. The presence of a sense of continuity among the various papers would have added to the value of the volume failing which it appears as if there is no exchange of ideas between successive contributors. Apart from this, the book has a wide range of grammatical and typing errors that could have been dealt with easily. While the presence of an exhaustive conclusion and the presentation of an integrated approach building upon the findings of various papers in the volume would have made the book more readable, the book in its present shape too has much to offer.

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Reading Ambedkar in the Time of COVID-19

AWANISH KUMAR

What lies behind the policy blindness towards concerns of the oppressed in India? The “social distancing” induced by the COVID-19 health crisis does not address the problem of deeper levels of distancing caused by “social isolation” and “social nausea,” two concepts used by B R Ambedkar. This article is an attempt to understand the factors behind the collective sociopolitical response towards the poorest sections characterised by lack of empathy, and to develop an Ambedkarite framework to understand social policy generally and, more specifically, in India.

A few weeks ago, thousands of Indians were witnessed marching hopelessly towards their hometowns in the absence of any other means of transport. The government and the public at large showed negligible levels of concern and support for these migrant workers. Like demonetisation earlier, this unplanned lockdown due to COVID-19 is a man-made and policy-induced crisis. According to some reports, more than 30 migrants have died on their way home. Why is our collective sociopolitical response towards the poorest sections characterised by this sheer lack of empathy? Of course, we get to hear a lot of inspiring stories about people taking care of strangers in these difficult times. But, why do our policymakers often forget the majority of our population when making sudden, drastic decisions? How does one explain the pathological distance between classes/castes and the policy blindness towards concerns of the oppressed in India?

To resolve this question, we need to understand how our society is structured and what the relationship is between individuals and society in India. The political realm draws from the conception of the individual in the social sphere. This is one reason why B R Ambedkar advocated for social reforms, that is, the annihilation of caste, as a prerequisite for political and economic reforms in India. This is a point he made a number of times inside the constituent assembly, including his last speech that the Indian social structure is incompatible with the principles of substantive democracy.

Experts have pointed out that the best way to fight the present and persistent danger of COVID-19 is to maintain physical distance from and contact (“social distancing”) with other individuals. However, as the Chief Minister of Kerala

Pinarayi Vijayan observed, this fight can be decisively won only by complementing physical distancing with social solidarity. In the Indian context, social distancing is a sociocultural phenomenon. Corona-induced social distancing does not address the problem of deeper levels of distancing caused by “social isolation” and “social nausea,” two concepts used by Ambedkar that are the mainstay of my argument in this article.

This article is a preliminary attempt at two things: one, to present a basic outline of these concepts, and two, to develop an Ambedkarite framework to understand social policy generally and, more specifically, in India.

Separation of Interests

According to Ambedkar, following John Dewey and his classic work *Democracy and Education: An Introduction to the Philosophy of Education*, societies are formed by classes, not individuals. Individuals are embedded in classes or social groups and, therefore, individuals only exist as socialised individuals. In every society, there are two broad classes—the labouring class and the leisure class. There are concrete historical, ideological and material bases for these classes to exist in society. However, there is a socio-psychological element that is highly significant in explaining the persistence of this class divide and how these classes deal with modern democracy. The problem is that every such group is, by definition, inward-looking and only concerned with their own interests, as “social stratification” makes these groups “impervious to the interest of others” (Dewey 2004: 130). Notice the term “impervious,” implying a complete closing down of the social group from any exchange or communication from the outside world. In the case of India, the exclusivist nature of castes in India makes them “anti-social” because they persist with their own interests without any consideration for the larger public interest (BAWS, Volume 1, pp 51–52, 64).

Every caste, in isolation, exists in isolation and cultivates hostility towards another. However, the worst sufferers of this

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process of social isolation are the oppressed castes, classes and groups: their interests are not heard because of the lack of channels of communication with other groups and, therefore, other classes/castes lose any sense of ethical response or empathy for the most oppressed. In the case of India, the Dalits, Adivasis and Muslims can be found to be socially isolated in this sense.

The only way out of this social dilemma is through, what Dewey calls, the process of “social endosmosis” between groups and, in turn, through that the achievement of the goal of “social efficiency.” Social endosmosis refers to the varied possibilities and channels of communication available in society between different classes and social groups. The term social endosmosis occurs for the first time in Ambedkar’s writings in his *Evidence Before the Southborough Committee* (1919) (see Mukherjee 2009; BAWs, Volume 1, pp 249–50). In *Annihilation of Caste* (1936), Ambedkar uses the term social endosmosis and fraternity to mean something very similar. He links these concepts with social mobility implying the presence of “varied and free points of contact” that allows “conscious” communication and sharing of “many interests” from one part to other parts of society (BAWs, Volume 1, p 57).

According to Dewey, social efficiency is “that socialisation of the mind which is actively concerned in making experiences more communicable” (Dewey 2004: 130). Both Dewey and Ambedkar thought that this was actually a process of re-socialisation. Ambedkar in his *Evidence Before the Southborough Committee* (1919) said: “in place of the old, it [social endosmosis] creates a new like-mindedness, which is representative of the interests, aims, and aspirations of all the various groups concerned” (BAWs, Volume 1, p 249). This type of re-socialisation was possible, according to Dewey, through the emergence of various forms of civil society and, especially, the public education system.

An important implication of the process of social endosmosis in segregated and fractured societies is that it is possible for an individual born in an oppressed group to achieve social mobility and enter

the ruling class. The social isolation of the labouring classes, in this way, is broken. Democracy is possible only when such conditions of inter-group communication and mobility exist in a society. Social endosmosis is important, therefore, in both its intrinsic sense to engender a feeling of belonging to a larger community and in its instrumental sense to deliver a more efficient society through the participation of all its sections. As is clear, the representation of all sections of society in the ruling establishment is both a prerequisite and an outcome of the process of social endosmosis.

Antagonism of Interests

The Indian society is unique given the prevalence of endogamous castes as its building blocks. The caste system exists with castes, in plural, characterised by graded hierarchy. Here, the social organisation in terms of social groups is fixed with respect to membership. The ruling class has members belonging to dominant Brahminical caste groups, and majority of the people are devoid of social, economic and political power. The “anti-social” nature of the dominant Brahminical social groups in India is quite explicitly demonstrated in policy. At a general level, it appears as a sustained opposition to even the bare minimum provision of food and work through, say, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) or National Food Security Act (NFSA). One of the most significant obstacles in the provision of public health in India is that the Brahminical elite demand and receive more public investments into private healthcare services, while the masses suffer precisely because of the lack of public health facilities.

The social isolation of oppressed groups in the Indian society is almost absolute for another reason. Apart from the other universal features of social organisation, according to Ambedkar, the Indian society is characterised by birth-based graded hierarchy of social groups. As he says in his historical study, *Who Were the Shudras: How They Came To Be the Fourth Varna in the Indo-Aryan Society* (1947), “no society has an official gradation laid down, fixed and permanent, with an

ascending scale of reverence and a descending scale of contempt” (BAWs, Volume 7, p 26). If a modern democratic framework is superimposed on this type of social structure, where the ruling classes inspired by Brahminism hold the oppressed classes in deep contempt, they will never grant even basic rights and amenities to the oppressed majority, leave alone demolish the ideological structure on which their power is erected. This contempt towards the oppressed castes takes many forms. Remember, this is not a matter among free individuals, rather individuals who are socialised in such behaviour towards social groups that are below them in the social hierarchy.

In another historical study, *The Untouchables: Who Were They and Why They Became Untouchables?* (1948), he says: “Untouchability is an aspect of social psychology. It is a sort of social nausea of one group against another group” (BAWs, Volume 7, p 370). This social nausea takes the form of explicit social boycott against the Dalits, if they are seen to be getting too mobile from their social stations. Or, this social nausea results in the invisibility of Dalit interests or outright denial of their demands in policy. Any attempt by any section of the establishment to grant basic dignity to Dalits in particular is met with extreme levels of opposition from the dominant Brahminical sections. In my experience as a college professor, I have found that the vilest, even bordering on abusive, discussions in Indian classrooms, when otherwise mild-mannered persons get agitated and aggressive, take place on the topic of reservations/affirmative action for the oppressed castes in India.

The separation of interest among social groups transforms into active hostility and antagonism of class-caste interests in the case of India. This happens because of the feeling of social nausea in one caste against another and by every caste against the Dalits. Again, the worst sufferers are the sections of the population who experience “social isolation” in the Indian society, namely Dalits, Adivasis and Muslims. The dominant classes and castes actively prevent progressive social reforms (in the social realm) and public policy (in the political realm), especially any reform

that might benefit (or even seem to benefit) the socially isolated groups.

Obstacles

This antagonism of interests among social groups, and more specifically between the dominant Brahminical castes and the oppressed groups in the Indian society, comes in the way of the creation of a public, defined by John Coggon (2012) as a collective of citizens in a given political system, that is, a shared community. In Coggon's framework, a shared community implies "shared concern." In this understanding, the shared concern and its associated political imagination go into "constituting" the public as a category itself. The public is not entirely separate from the individual in a shared community, and, therefore, each person's concern is significant in the making of a shared concern. At a more general level, this understanding stands against the reified notion of the "public" and presents itself as a work in progress, that is, bringing people together based on a shared political imagination. Any form of collective action or formulation of progressive public policies is possible only with the existence of such feeling of togetherness, that is, fraternity.

Ambedkar was aware of the significance of this notion of "shared" community as a prerequisite for nation building. And, he spent enormous amount of time and effort in theorising the notion of fraternity, that according to him was the most important element of the slogan: liberty, equality, and fraternity. In fact, his eventual conversion to Buddhism, in a way, signified the movement away from caste and towards the sangha, that is, social organisation built on the principle of fraternity. It is not very well known that the term fraternity was not part of the objectives resolution adopted by the constituent assembly in January 1947. The *Gazette of India* published on 26 February 1948 recorded that the insertion was made by the drafting committee chaired by Ambedkar. During the constituent assembly debate on 6 November 1948, one of the members, Pandit Thakur Dass Bhargava, thanked Ambedkar, especially for adding the word fraternity in the preamble to the draft Constitution. I will not cite the

much-quoted section from Ambedkar's last speech to the constituent assembly on 25 November 1949, but let me quote from the later part of the speech where he discussed how difficult it was to establish fraternity in the context of India:

What does fraternity mean? Fraternity means a sense of common brotherhood of all Indians—if Indians being one people. It is the principle which gives unity and solidarity to social life. It is a difficult thing to achieve ... I am of opinion that in believing that we are a nation, we are cherishing a great delusion. How can people divided into several thousands of castes be a nation? The sooner we realize that we are not as yet a nation in the social and psychological sense of the word, the better for us. For then only we shall realize the necessity of becoming a nation and seriously think of ways and means of realizing the goal ... In India there are castes. The castes are anti-national. In the first place because they bring about separation in social life. They are anti-national also because they generate jealousy and antipathy between caste and caste. But we must overcome all these difficulties if we wish to become a nation in reality. For fraternity can be a fact only when there is a nation. Without fraternity, equality and liberty will be no deeper than coats of paint. (BAWS, Volume 13, pp 1244–45)

In *Annihilation of Caste* (1936), Ambedkar clarifies how caste is detrimental to social endosmosis and fraternity:

The effect of caste on the ethics of the Hindus is simply deplorable. Caste has killed public spirit. Caste has destroyed the sense of public charity. Caste has made public opinion impossible. (BAWS, Volume 1, p 57)

In a real sense, this is the unfinished Ambedkarite agenda. A nation, according to him, was as much a social and psychological entity as it was a political one. The castes, and the caste system, by definition, are anti-social and anti-national. How do we establish fraternity in this nation marred by caste and communalist religious divide? How do we resolve this millennia-old struggle between the Brahminical ruling classes/castes and the oppressed classes/castes in India? Can we apply the Dewey–Ambedkarite principle of social endosmosis here?

Social Endosmosis in India?

Social endosmosis will require the free and fluid exchange of experiences between different social groups that may form the basis of the political coming-together of these groups for a common agenda of

development. Many commentators spotlight this point, even bemoaning the absence of a politics of development. In the times of Corona, some commentators have been taunting the poor and the oppressed of the country to vote for public health and education in, upcoming elections. What exactly prevents such outcomes in the sociopolitical spheres is something no one talks about, let alone drawing a road map for its achievement.

As hinted at earlier, one of the most important implications of social nausea of the dominant Brahminical castes towards the oppressed castes is that even if it is empirically proven that the provision of certain public goods to everyone makes better economic and policy sense, they would still not work towards such a policy agenda because of their desire to solidify social control over oppressed groups by denying them decent conditions of life and work. The public policy experience from Scandinavia, or even Kerala, is simple: creating and sustaining institutions that are oriented towards the common good, such as public health and education or even a cleaner neighbourhood, produces better outcomes for everyone. But, that is not to be.

Two areas where the Indian society could have made a fundamental break from the past are systematically increasing the representation of all sections of society in the bureaucracy and state structures; and massive investments in good quality public education and health. Both these processes would have given force to the process of social endosmosis in India and strengthened Indian democracy. However, as we know, we have failed in both these areas miserably. Contrary to middle-class perceptions, despite affirmative action policies, the representation of non-Brahmin groups in most public institutions, including top bureaucracy, judiciary and academia, is abysmally low. And, we have never taken the question of public education and health seriously, as has become obvious during the current COVID-19 crisis. The result is that not only is our public health system completely unprepared for such emergencies, our society and popular culture is full of anti-scientific and hazardous, obscurantist belief systems.

It is the lethal combination of the social

isolation of oppressed castes and the social nausea of dominant Brahminical castes towards the former that allows public policy to be completely blind to the needs and aspirations of the masses. The lack of interest, communication and knowledge about the challenges of life and work experienced by the socially isolated groups along with active hostility and hatred towards them explains why a complete lockdown is announced without any consideration for the life and income of the poorer sections of the society.

Additionally, the social isolation of the oppressed castes in the Indian society, particularly of the Dalits, Adivasis and Muslims, makes it possible for the dominant Brahminical elite and middle class to justify any kind of violence and brutality against the former and the poor in general. This social isolation of concerns and interests can be broken through a social process of communication and exchange that can be enabled only through the creation of public institutions that encourage social endosmosis.

An example of this violence against the marginalised, even during the current crisis, can be seen in the targeting of Muslims over the congregation of the Tablighi Jamaat in Delhi. In the caste-trained mind, a disease is not carried through germs but by “unclean” human beings. The cleanliness here does not refer to actual physical cleanliness but “ritual purity,” about which the casteists care more than anything else. This perspective on health and illness has grave implications for struggle against open defecation in India (Kumar 2017). In towns and cities, apart from open defecation, waste management agencies face severe difficulties because the relationship between households and the garbage they produce continues to be defined by the binary of purity and pollution.

Many self-proclaimed “modern Hindus,” during any conversation about disease, attempt to mix the two notions of “impurities” together. This is the Brahminical formulation of health whereby the ritually impure are, by definition, carriers of disease and, hence, socially undesirable. Existing prejudices and violent attitudes towards castes and communities held ritually impure by the casteist mind have

been unwittingly exacerbated in times of the COVID-19. This has happened in a variety of ways. Local media, including WhatsApp groups, are flooded with messages claiming the superiority of Hindu culture and untouchability over the Western or cosmopolitan mode of life. One of the time-tested strategies utilised by the Indian village society against the Dalits is social boycott, something Ambedkar had pointed out in his earliest legislative interventions on 3 and 4 August 1928, during the presentation of his proposal to amend the Bombay Hereditary Offices Act, 1874, or in simple terms, to abolish Mahar Watan (BAWS, Volume 2, p 79). This strategy is now being reinvented in the times of COVID-19 to target the already socially and residentially ghettoised Dalits and Muslims. Muslims are being attacked all over the country as “carriers” of the virus, while there are at least a few reports of such attacks being carried out against Dalits too (Modak 2020; *Scroll* 2020).

Annihilation of Caste

This brings us back to the central civilisational reform in Indian society, that is, annihilation of caste. The action plan towards the annihilation of caste requires a joint front of progressive political parties, social activists, and individuals who take the fight against caste in all its forms to everyday life.

The most important failure of the Nehruvian secularism project has been its neglect, and sometimes even wanton celebration, of everyday forms of obscurantism and caste-based economic practices, culture, language, food habits, attire and, most importantly, marriage practices. Nehruvian secularism claims to be a modern project but it does not fight pre- and anti-modern practices with all its might. At individual and group levels, it often mistakes radical atheism as the solution to everyday obscurantism. However, as Ambedkar would point out, caste is a socio-economic and historical reality, and therefore, one cannot simply exonerate oneself by “taking a stand” against caste while participating in a caste-based sociocultural universe.

It is important to point out that the ruling ideology of neo-liberalism harmonises

very well with the Brahminical ideology to deny basic dignity and incomes to the majority of the people. The toxic mix of neo-liberalism and Hindutva since the 1990s has reinforced the fore-mentioned Brahminical notions of cleansing and sectarian solidarities. As Ambedkar had noted, the struggle hence has to be twofold: against Brahminism and (neo-liberal) capitalism.

If one is really committed to the annihilation of caste and it becomes the basis for a democratic India, then one needs to combine the struggles for economic, social, and religious-ideological reforms/revolutions. The important task of building social and economic institutions that encourage social endosmosis and break social isolation of the oppressed is to be taken forward together. That will make a more humane India, and over time a more egalitarian India—the India of Ambedkar’s dreams.

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Caste Prejudice and Infection

Why a Dangerous Lack of Hygiene Persists in Government Hospitals

PAYAL HATHI, NIKHIL SRIVASTAV

In light of India's continuing efforts to reduce maternal mortality, why government hospitals continue to be dangerously unhygienic, posing serious infection risks to patients, is explored. Through interviews and observations at public hospitals in Uttar Pradesh, Bihar, and Madhya Pradesh, we find that unhygienic practices and behaviours by health staff abound, leading to an environment with high potential for infection. Deep caste prejudice against cleaners prevents the professionalisation of their work, leaving them overburdened and under-equipped to maintain standards of hygiene. Casteist notions of cleanliness also weaken rigorous implementation of infection control measures by hospital staff. Rather than addressing these deeper issues, antibiotics are routinely prescribed as a shortcut to deal with the risk of hospital infection.

Despite progress in reducing maternal mortality in recent decades, India represents one-fifth of all maternal deaths. At 45,000 deaths in 2015 (World Bank 2015a), this is more than any other country in the world. India's maternal mortality rate (MMR) in 2015 was 174 per 1,00,000 live births (World Bank 2015b). In contrast, India's neighbours, China and Sri Lanka, had MMRs of 27 and 30, respectively. Developed countries, like the United Kingdom (UK) and the United States (US), have MMRs below 15.

Indian health policy has increasingly emphasised hospital births as a means to reducing maternal mortality. Based on the assumption that hospital births are cleaner and safer than home births, India's Janani Suraksha Yojana (JSY) has provided cash incentives to encourage women to deliver in public hospitals since 2005. As hospital births have increased from approximately 40% to 80% of all births from 2005 to 2015 (NFHS 2015–16), the programme is often touted as a great success. Still, India's MMR remains high.

Sepsis, or infection, is a leading cause of maternal mortality in India, and is additionally associated with various morbidities (Hussein et al 2011; NHP 2016). Post-partum infection indicators in national-level data (NFHS 2015–16) show that about one-fourth of women who delivered in a government facility in Uttar Pradesh, and close to one-fifth of women in Bihar, reported high fever within 40 days after delivery. A 2015 study in Uttar Pradesh found cases of puerperal sepsis, or infection from childbirth, both among women who delivered at home and those who delivered at hospitals (Qadri et al 2015). It is likely that the additional women brought into the hospital system by JSY is putting pressure on public facilities that they are not equipped to handle, resulting in falling standards of care and increased risk of infection (Hussein et al 2011), thereby diminishing some of the advantages that an institutional delivery might offer over a home delivery.

The deficiency of sanitation infrastructure and maintenance in government hospitals in India is well documented (WaterAid 2016). Various studies and experts have reported that rates of hospital-acquired infection are concerningly high in India (GARP 2011; Mehta et al 2007). This direct link between basic hospital cleanliness and hospital-acquired infection is in some ways straightforward to address and, indeed, government programmes like Kayakalp have begun to "incentivize and recognize public healthcare facilities that show exemplary

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performance in adhering to standard protocols of cleanliness and infection control” (NHP 2015). However, the government’s checklist tends to prioritise what can be plainly seen, relying largely on visual inspection, checking of documents, and staff reporting to make assessments. Only a handful of items on the checklist ask reviewers to observe health workers. This means that as long as documents are in order, and staff are trained sufficiently to know the correct answers to give, behaviours that may transmit infection can be largely neglected, while cosmetic cleanliness can earn a facility a glowing review. Our analysis revealed much deeper and more difficult problems to solve.

Although some studies in India have examined the effectiveness of specific interventions to improve adherence to hygiene protocols in hospitals and labour rooms (Shouri 2017; Biswal et al 2014), few have sought to understand the range of behaviours and beliefs that prevent high-quality infection control. Through qualitative interviews with cleaners and other hospital staff, and observation of government hospitals in north India, this study reveals how cultural beliefs misinform understandings of how disease is spread. It also shows how internalisation of caste prejudice perpetuates dangerous medical practices in hospitals. We find that, in addition to a widespread lack of understanding of infections, rampant caste discrimination prevents professionalisation of the cleaning staff. Since they are directly responsible for keeping facilities clean, caste discrimination leaves hospital patients gravely at risk.

Rather than addressing these deeper issues of prejudice among health staff, we found ubiquitous use of antibiotics for mothers as a shortcut to prevent infection while they are in the hospital. This practice falls outside World Health Organization (WHO) recommendations (WHO 2015), and incorrect usage of antibiotics is likely to lead to serious antibiotic resistance.

Hospital hygiene and infection control are issues that draw serious attention and resources in developed countries, but are not given enough consideration in health policy discussions in India where inferior infrastructure quality and overcrowding make conditions far more unsafe. This article asks why, even though Indian officials have begun to recognise that hospital-acquired infection is a problem, hygiene in government hospitals is still so abysmal. As more women turn to health facilities to

give birth, it is imperative that the potential infection risks posed by hospital births be more widely discussed.

Hospital Birth, Infection, and Maternal Mortality

India’s overall maternal mortality rate of 174 per 1,00,000 live births masks great variation within the country: following the trend of many other human development indicators, northern states have much higher rates of maternal death (above 150) than southern states (below 70) (SRS 2018). This study focuses on the role that hospital hygiene and infection may play in India’s high rates of maternal mortality in northern India.

Table 1 shows trends over time in the place of delivery and post-partum infection for vaginal births in 2005 and 2015 in select south and north Indian states from the nationally representative National Family Health Survey (NFHS) data. Our study’s focus states are in north India, and include Uttar Pradesh, Bihar, and Madhya Pradesh. Kerala and Tamil Nadu in south India provide a comparison. While post-partum fever cannot be directly measured, since women are not systematically tracked after delivery, reports of high fever in the 40 days after giving birth are a strong indicator of infection. It is important to note, however, that rates of infection are likely underestimated. This is true for multiple reasons: we only have data on a single symptom, our analysis only includes vaginal deliveries and not c-sections, and self-reported numbers may undercount actual instances.

Facility births have increased drastically in the north Indian states. Surprisingly, infection rates have also gone up over time in all settings (public hospitals, private hospitals, and at home). It is possible that women are more aware of their symptoms (like high fever) after birth, or that survey data quality had improved for this question. Also, this data does not tell us whether women’s infections originate in the hospital itself or after being discharged from the hospital because their home environments may be unhygienic. Still, women delivering in hospitals should both have a cleaner birthing environment than those delivering at home and be given information from hospital staff to help prevent infection after going home. These increasing infection fractions, therefore, suggest a lack of adequate care. Further, it is clear that in the south Indian states, rates of infection are lower. Thus, better outcomes are possible in India.

Table 1: Place of Delivery, Rate of Infection, and Maternal Mortality for Vaginal Births

	Uttar Pradesh		Bihar		Madhya Pradesh		Kerala		Tamil Nadu	
	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015
Place of delivery (NFHS)										
Government hospital	6%	47%	3%	50%	18%	72%	38%	41%	51%	75%
Private hospital	11%	18%	14%	12%	6%	7%	61%	59%	33%	24%
Home	83%	35%	83%	38%	76%	21%	0.9%	0%	15%	1%
Infection after delivery (NFHS)										
Government hospital	15%	23%	18%	21%	15%	17%	6%	8%	4%	13%
Private hospital	16%	19%	20%	20%	12%	13%	5%	6%	3%	13%
Home	19%	25%	21%	22%	17%	20%	0%	0%	5%	13%
Maternal mortality (SRS)										
MMR (deaths per 1 lakh live births)	440	201	312	165	335	173	95	46	111	66

Place of delivery and infection after delivery estimates come from the authors’ analysis of National Family Health Survey (NFHS) data from 2005–06 and 2015–16 (IIPS and Macro International 2007; IIPS and ICF 2017). Maternal mortality statistics can be found in Sample Registration System (SRS) Bulletins (SRS 2009, 2018). In the SRS Bulletins, UP includes Uttar Pradesh and Uttarakhand, Bihar includes Bihar and Jharkhand, and MP includes Madhya Pradesh and Chhattisgarh.

Methodology

We selected districts in Madhya Pradesh, Bihar, and Uttar Pradesh based on high population numbers and high maternal mortality rates. Within the selected districts, we visited the main district hospital, and at least one primary health centre (PHC) or community health centre (CHC) within that district. We purposely selected health centres that were easily connected by road to the main district hospital to see the places where medical supplies and staff are most likely to reach.

Based on the size of the facility, we spent between three and six hours per hospital. While in the hospital, we interviewed staff and observed their behaviour. We also observed the general condition of hospital wards and grounds. We looked for items such as whether the floor was visibly clean, whether a sink was available for staff and for patients, whether waste was visible in the corridors, if bedsheets were clean, if toilets were clean, if staff were wearing gloves while interacting with patients, if gloves were changed in between patients, and if staff washed hands before and after interacting with patients.

Out of 55 interviews, 26 were conducted with cleaners, using a question guide to direct the conversation. Topics of inquiry included job responsibilities, challenges while working, existence and enforcement of cleaning procedures (including glove use, floor and latrine cleaning, sheet changing, and needle and bio-waste disposal), knowledge and understanding of infection and infection control policies, nature of interactions with other hospital staff, job-related health concerns, and family work history and aspirations. Remaining interviews were conducted with cleaning staff supervisors, ward attendants, *dais*, *ayahs*, *dhobis*, lab technicians, nurses, doctors, and hospital administrators.

Under the Surface

While facilities often look clean on the surface, many unhygienic practices by hospital staff, informed by a cultural understanding of what is clean and unclean, are likely to spread germs and cause infection. These same beliefs are also at the root of caste discrimination against cleaners who are responsible for maintaining hygiene in hospitals, putting the cleaners themselves at great risk and, in overstressing their capacity to do their jobs well, putting patients at risk also. We describe here the conditions and practices we found in maternity wards and delivery rooms of government hospitals in Madhya Pradesh, Bihar, and Uttar Pradesh.

Inside the delivery room: Today, the germ theory of disease is common knowledge, and medical guidelines for women seeking maternity care ubiquitously include glove use, hand-washing, and instrument cleaning as standard protocol. And, yet, across multiple delivery rooms, across different states, stories abound of behaviours that are serious cause for alarm.

In a delivery room of a district hospital in Bihar, one of the authors observed a senior nurse perform two consecutive vaginal exams with the same glove, minimally running water over the glove in between. She also did not wash her hands before or after these examinations. In a district hospital delivery room in Uttar Pradesh, a nurse inserted an unsterilised sari cloth into a woman's vagina to remove remaining placenta from the

womb. In another district hospital in Uttar Pradesh, where many women were delivering simultaneously, an *ayah* removed metal instruments from water in a rusty metal container with her bare hands. And, at a smaller CHC in Uttar Pradesh, a nurse mentor explained that before 2016, instruments were routinely cleaned with just water, though now they use bleaching solution. In reality, even this is not enough, and washing, boiling, and autoclaving instruments regularly are standard protocols for instrument sterilisation (ICMR 2016).

Outside the delivery room: Unhygienic conditions and practices outside the delivery room were also far too easy to find. The toilets in several maternity wards had not been cleaned in several days. At both district and PHC/CHC levels, toilets were sometimes filled with faeces, leaving women no option but to squat above the faeces in the pan, or to go out in the open. Although cleaners are responsible for daily cleaning of toilets, there is a mix of shirking of responsibilities by cleaners who are unwilling to handle faeces, and a lack of time for cleaners who are doing tasks beyond their own duties.

Several cleaners who worked in delivery rooms and maternity wards mentioned that they are responsible for changing dressings for women post-delivery, and for inserting and removing catheters, both of which put them in contact with patients' open wounds. In the maternity ward at a district hospital in Bihar, we observed that a cleaner did not wear gloves throughout her shift, as she swept and mopped the floor, went in and out of the delivery room, and washed the latrine with water. Before leaving, she wore gloves and removed a patient's catheter, discarding it out of the window along with the gloves. Catheter removal is the responsibility of trained nurses, not cleaners. Additionally, since gloves can have holes or break, the cleaner's lack of hand washing prior to patient contact is a health risk for the patient.

As we walked out of the hospital, three nurses outside of the general ward were filling in many syringes from identical bottles (we learned that they were antibiotics). One nurse had just walked out of the nurse's toilet, without washing her hands at the sink outside the door. The three nurses then began administering the injections with no gloves on, neither washing hands nor using steriliser between patients.

Such unsafe behaviour clearly puts staff, patients, and attendants at risk of infection. So, why is it that hospital staff do not follow procedure? Many of the reasons described below appear at the outset to be logistical. However, they oftentimes stem from cultural understandings of cleanliness that do not align with medical best practice, and go unnoticed because they most directly affect low-caste cleaners who are believed to be unimportant, and whose work is seen as unclean.

The Unseen Role of Casteism

In his 2007 book, *Better: A Surgeon's Notes on Performance*, American doctor Atul Gawande describes the meticulousness with which his US hospital tried to address hospital-acquired infection rates. Although a proper hand washing regimen is time consuming and difficult to adhere to, even switching to

alcohol sanitisers failed to improve incidence of infection, which he attributes to holes in compliance rates. This is true in Indian hospitals also. However, in India, we argue that notions of purity and pollution and systems of hierarchy that stem from casteism additionally contribute to the risk of hospital-acquired infections. These beliefs are often at odds with the germ theory of disease, and negatively affect how hygiene is maintained in public hospitals.

Indian society has long been regulated by the caste system in which individuals are designated to particular occupations and ranked accordingly. Those of the lowest castes, or Dalits, are relegated to the most menial tasks, often those considered the dirtiest, such as cleaning faeces and garbage, handling animal carcasses, preparing dead bodies for cremation, and cleaning after childbirth. Their engagement in these tasks is used to justify widespread oppression and discrimination against Dalit communities. The types of discrimination they face are wide ranging, and include not being allowed to share water sources, not being able to go into temples, not being allowed to sit down in front of higher caste individuals, and not being allowed to enter police stations (Shah et al 2006).

In the hospital setting, even though the health facilities we visited were in urban or semi-urban places, cleaning work continues to be assigned to the same marginalised communities that exist in villages. Although we sometimes heard that people from other castes now do this work, we were unable to find any non-Dalit person in the role of a cleaner. Further, interviews showed clearly the intergenerational continuity of cleaning work: a majority of the cleaners we spoke with mentioned that others in their family, both in older and younger generations, did or do similar cleaning work, if not at the same hospital, then at another hospital, in another government office, in the Nagar Pallika, or in the railways.

The stigma around cleaning work is still strong. Cleaners explained that while people of non-Dalit castes are in cleaning work, they often refuse to do the dirtiest work of cleaning blood and latrines, and only actually do sweeping and mopping. At a CHC in Bihar, a health manager explained that the tradition of having certain types of workers from certain castes—like dais from the Chamar caste and barbers from the Nai caste—has been going on since the Vedic period. A district hospital manager in Bihar explained that many cleaning jobs stay vacant because “normal” people “naturally” would not want to do this work, and only those of a certain caste are willing to take the jobs. Their explanations demonstrate the complete internalisation of the hierarchical social order.

When asked directly about the discrimination they face in their work, cleaners mostly denied that it happens. However, caste discrimination is disguised in the form of an internalised hierarchy in the hospital institution, and both upper- and lower-caste people act according to tacitly understood rules of power. For example, our attempts to speak to cleaners were sometimes met with outright hostility because many staff and administrators seemed to believe that cleaners were not worth talking to and were offended by how much attention and importance we were giving them.

Another manifestation of the hierarchy can be found in day-to-day interactions, in which cleaners know that they are never

supposed to sit in front of their high-ranking, upper-caste superiors. A cleaner at a CHC in Uttar Pradesh explained that they cannot sit at the same level as other staff, even if there is a chair available. A cleaner at another CHC in Uttar Pradesh described how decades earlier, when he came for his job interview, he sat on the floor and touched the feet of his interviewers to show that he was as small as they believed him to be. He explained that only by giving sufficient respect to the higher-caste people in charge are people of low-caste able to get anywhere. He described that older cleaners pass down the rules to newcomers as they join the staff, making sure that norms stay intact and that hierarchy is maintained:

We follow the path that our elders lay out, because we are not going to go in a separate direction from them. If they showed us the wrong way, then we will go that wrong way.

These sentiments were echoed by many of the cleaners we spoke with. Based on their life experiences, they understand the negative consequences of a Dalit breaking social norms. While they may not face physical violence in the hospital setting, there is always the threat of losing their job.

This internalisation of prejudice is similarly seen among those perpetrating the discrimination. Non-cleaning staff, of higher caste, openly admit to the discrimination, and justify it. Using circular logic, a nurse at a CHC in Bihar explains that there is a distance because this distance has existed for so long:

This is Bihar, and there is a greater adherence to tradition here, as in this has been going on for a long time, people have been divided. For example, they shouldn't come [and sit in this room] here. We should not eat with them. Since this has been going on for so long, one doesn't get satisfaction unless we follow the rules. They are also not clean, and so the distance remains.

Unfortunately, the rules of caste hierarchy supersede those of a normal, professional, workplace. Rather than doing what is best for patient health outcomes, the dictates of caste take precedence. In the next sections, we explore how caste prejudice has an impact on the work of achieving and maintaining hygiene in public hospitals, and some reasons why unhygienic conditions and practices persist.

Overcrowding: One of the most consistent sights in large district hospitals is the crowd. Patients often bring several attendants with them, and hospitals must cope with many more people than they were designed to handle. In one district hospital in Madhya Pradesh, 114 patients were crowded into a space that had 62 beds. This staggering number does not even count the multiple attendants that accompanied each patient. In some cases, attendants were sharing mattresses with patients. This volume of people exponentially adds to the physical filth that is generated, making cleaning difficult.

There is a stark contrast between the overcrowding seen in larger facilities and the relative emptiness of PHCs and CHCs. Efforts to get PHC-/CHC-level facilities functional have been unsuccessful, as seen by how empty they are. People know that larger hospitals have better facilities and more staff, and will be open at night, so rather than complaining about non-functional PHCs/CHCs, people opt to go to district-level hospitals, further overcrowding them.

Lack of respect: Because of the assumption that cleaners will ultimately clean everything up, there is often a general lack of concern about keeping public spaces clean (Gatade 2015). This assumption relies on the normalisation of caste prejudice, so that the dehumanisation of Dalits seems commonplace. Many cleaners complain about the lack of courtesy that families show. A cleaner in a Bihar district hospital explained that every patient brings 10 people with them, and that they do not cooperate when cleaners ask them to keep things clean. Another cleaner at a district hospital in Uttar Pradesh explains:

Lots of people throw [their garbage] on the floor. [If I ask them not to] they get angry and tell us to do our job [of picking up the trash]. They just throw it.

Hospital staff also assume that cleaners will pick up after them. Waste segregation systems in the form of different coloured bins exist in many wards and delivery rooms. In some cases, healthcare staff use them diligently. But they are often undermined by carelessness and lack of respect for cleaners. Sorting through the trash and separating it into the correct bins then becomes another responsibility for the cleaner. Cleaners do not feel they can push nurses to follow the rules, as it is not their place. A cleaner at a Bihar CHC explains:

What can we say, what can we say to the nurses? They are above and we are below. If someone is higher up in the hierarchy, they can throw things anywhere, and they do. We just clean as we were told.

Hierarchy prevails, and lack of respect, both from patients and hospital staff, adds to cleaners' workloads, making the hospital environment difficult to keep truly clean.

Shortages, of training, time, and supplies: The few permanent cleaners that we met had attended some training, though not necessarily at the beginning of their careers. However, a majority of cleaners we spoke with were contract employees, and none had ever received any formal training. Whatever they knew how to do, they learned by watching other cleaners. This is in part because cleaning jobs are not considered important enough to warrant special training, and in part because it is assumed that anyone from a sweeper caste who takes these jobs already knows what to do. As a cleaner in Bihar explains:

What training? I'm being open here. We are of a low caste, and from childhood we have been doing this work. You can see this as training. We have been doing this work since we were young, and what better training than this could there be.

When training happens, it is not always given to the right people. At a CHC in Madhya Pradesh, a lab technician explained that the technicians are the ones who are sent for any government training (in fact, under the Kayakalp initiative, it is the lab technicians who are responsible for infection control in hospitals). They are taught about proper cleaning practices and procedures, and are supposed to train others. But, the lab technician admitted that it is difficult to communicate everything accurately and in detail to the cleaners, implying that low-caste cleaners are not intelligent enough to understand the details of technical trainings.

Even without training, the list of tasks that cleaners are responsible for is long, and ever growing. It is commonly understood that officially, they are responsible for what is "below the

window sill." For cleaners in the wards, this includes taking out the trash, sweeping and mopping the floors, and cleaning latrines. For those in the delivery room, tasks additionally include cleaning blood off of sheets, mattresses, and beds, and removal of the placenta to an outside location. Unofficially, however, workers at all levels aspire to do the work of their bosses, and so task shifting, in which cleaners help those above them in the hierarchy with many of their assigned tasks, is common. Thus cleaners often change sheets for ward boys or ayahs, clean and dress infected wounds for dressers, insert IV lines and put in and remove catheters for nurses, and clean newborns fresh out of the womb for nurses or doctors. In some cases, they even deliver babies. While this gives their bosses some free time, the burden of these additional tasks comes at the expense of an already overstretched cleaning staff. Additionally, cleaners are not trained to do the tasks of other staff, further putting patients at risk.

Conversely, even when there is too much cleaning work to be done, task shifting in the opposite direction is never done. A doctor in Madhya Pradesh explained that if he could not find a cleaner, "the dirtiness will stay." A cleaner at a CHC in Uttar Pradesh described how the delivery room sometimes stays dirty all evening and night because he is the only cleaner and he comes in the mornings to clean once per day. We were constantly assured by hospital staff and administration that there would never be a time when cleaning could not happen, because a cleaner could always be found if needed. Cleaning staff is given vacation only if other cleaning staff will be available to do the work. But, more importantly, families and entire communities of cleaners commonly live together, so if one person is not available, it is easy to find another. Repeatedly, we heard, "Only the sweeper will do the sweeper's work." A nurse in a Bihar CHC explains how there is no need for her to worry about doing cleaning work because cleaners manage within their own communities:

Here, whoever is the sweeper has her whole family with her, and they all live here. So if one needs help, another will come. Like those three ... mother-in-law and her daughter-in-law take shifts, like that. They all live near. If there is an emergency, then all of them come. Among themselves, they manage.

Some nurses at a PHC in Bihar similarly explain that cleaners deputise other cleaners (including their children) to finish their work if they cannot do it themselves, but that the nurses themselves will not do the cleaning work under any circumstances:

They will delegate to someone. We can move the placenta, but we won't do any of the other cleaning work. We won't do it. At any cost. I'm telling you clearly.

One might argue that a separation of tasks is efficient. However, when cleaners are doing the work of others while no one is willing to do the critical cleaning work that keeps a hospital clean, the result is a lot of pressure on cleaning staff, with subpar results for hygiene.

This separation of tasks is understood by both cleaners as well as higher level staff. An ayah in a district hospital in Madhya Pradesh points out what each person's task is, and that it is the dirtiness of the work that determines what work she and other non-cleaning staff will and will not do:

[After delivery] the sweeper will clean with bleaching powder. We won't do that work, everyone's work is separate. Only she can clean, all the dirty

work she will do, and we boil instruments, if the ward boy is present then he will boil instruments, nurses bring the cart with all the delivery supplies.

She goes on to say that if things are dirty, even the doctor will wait 10 minutes until things are cleaned. If there is no sweeper available right away, they will put gloves on both hands, wrap everything in a rubber sheet and put it on the side. If there is anything dirty on the ground, someone will use their feet to wipe it up. Then eventually they'll find a sweeper to do the cleaning because "only a sweeper can do this kind of work."

In addition to the infection hazards associated with leaving biowaste unhandled, the practice of task shifting is also problematic because it adds stress and work for the cleaners. Particularly at busy facilities, cleaners and other staff expressed feeling a lack of time when things get busy because there are only a set number of cleaners for so many patients.

Many cleaners admitted that when the delivery room becomes busy, rules for infection control are not always followed. A cleaner at a district hospital in Madhya Pradesh explained the impracticality of using gloves all the time:

When there is a lot of work, what can we do? Should we look after the baby, or pay attention to gloves, or to infection? So first, we hold the baby, and it sometimes happens that we're not able to wear gloves.

A health manager at a district hospital in Bihar explained that if someone comes from a faraway rural area for an emergency, it is difficult to tell the patient and their attendants to wait for instruments to be cleaned, and so rules sometimes have to be bent.

Additionally, supplies are also often lacking, forcing hospital staff to choose when it is necessary to wear gloves. Their decisions are ruled mostly by casteist notions of purity and pollution rather than germ theory. For example, gloves are required for traditionally "dirty" work, such as cleaning blood in the delivery room, or cleaning latrines which involves faeces, but not required for tasks such as inserting IVs, doing *jhadu/pocha*, or handling trash, which are not considered polluting, though they can certainly expose a person to infection. Such rules leave gaping holes in efforts to strengthen infection control measures.

Hierarchy in the context of supply shortages prevents cleaners from asking for what they need to do their jobs well and safely. One cleaner in Bihar explained that she wears a glove only on one hand for each delivery, and then as per the rules, throws it away. She uses the gloves that are for the nurses, because the contract owner does not supply gloves sufficiently. Many cleaners mentioned that it is often difficult to ask nurses for supplies, and that nurses give gloves only for the tasks they do not want to do themselves, and not for the cleaner's protection. A cleaner in Bihar also described how cleaners like him are too afraid to ask for protective gear that they are legally entitled to because they might be seen as insolent, and be fired:

There is no one who is willing to speak. You must understand, if I speak up then they would think I am being an activist, and I would be the first to go, to be fired. Out of fear, no one speaks. If we do say something, they will say, "Punk, are you trying to be a leader? Let's get rid of him." Knowing this, no one says anything. Whatever they give us is fine.

This disempowerment allows rampant corruption because low-caste cleaners are largely invisible in the eyes of the government, and therefore easy to exploit. We met more than one cleaner who was expected to perform their duties without pay, and since most

cleaners are hired on contract, many are severely underpaid. And, contractors across all three states are not in compliance with regulations for providing cleaners with the protective gear they need and are legally entitled to. Despite these challenges, cleaners continue to make do without, at the expense of their own health, and of infection control and patient well-being more generally.

Use of antibiotics in lieu of hygiene: The hospital staff and administrators that we met did not express serious concern about the public health implications of the lack of hygiene. Rather than fixing the deeper problems at the root of unhygienic practices (Chandra and Milind 2001), antibiotics are routinely prescribed to mothers and other patients as a shortcut to dealing with the risk of hospital infection. A nurse mentor at a CHC in Uttar Pradesh explained:

After delivery, one reason that antibiotics are given is because I do not trust that these instruments have been boiled well before use. To reduce chances of infection, we give antibiotics after delivery.

WHO guidelines state that routine antibiotics are not recommended for women with uncomplicated vaginal births, forceps or vacuum assisted birth, or episiotomies (WHO 2015), but all new mothers we spoke with were given antibiotics after any kind of delivery. Many believed that antibiotic pills were for pain, unaware of the importance of following through with the full course, likely contributing to the development of antibiotic resistance. Several recent studies have documented growing maternal mortality from sepsis in the US and the UK, and suggest that one possible cause might be growing resistance to antibiotics (Acosta and Knight 2013; Bauer et al 2013). A 2013 study from Madhya Pradesh (Sharma et al 2013) documented widespread misuse of antibiotics, and many studies have already documented evidence of antibiotic resistance across India (GARP 2011; INSAR 2013; Gopalakrishnan and Sureshkumar 2010; Tiwari and Sen 2006). A 2011 study from Karnataka found many antibiotic resistant bacteria in maternity wards and labour rooms (Manjula et al 2011). Antibiotic prescription practices in maternity wards should be studied further, as effective antibiotics are crucial for the improvement of maternal outcomes, and for the health of India's population more generally.

Infection Control Requires Respect and Training for Cleaners

In light of India's continuing efforts to reduce maternal mortality and make childbirth safer for women, this article sought the perspective of cleaners to explore why government hospitals continue to be dangerously unhygienic. We find that unhygienic practices and behaviours by health staff abound, leading to an environment with high potential for infection. Deep caste prejudice against cleaners, who continue to come from marginalised Dalit communities, prevents the professionalisation of their work. This, in turn, leads to a lack of hygiene as casteist notions of what is clean and unclean influence the way that infection is understood and infection control is implemented. The discrimination cleaners face means that they are the least trained and least supported members of the hospital staff, expected to undertake cleaning duties with insufficient supplies and protection, in addition to the tasks they are unqualified for

that they perform for other staff members. This is the environment that mothers are encouraged and even paid to put themselves in under the JSY in order to deliver their babies.

Existing policies like Kayakalp use checklists that include direct observation of visible cleanliness. While visible cleanliness matters, it is not enough. In several locations, we noticed that after we began asking questions about cleaning practices, facilities would become spotless within hours. These transformations demonstrate an awareness of how clean a facility should be, and what is possible if implementation and enforcement of infection control is prioritised.

Several avenues for policy action seem useful. First, the casteist nature of hiring for cleaning jobs in hospitals must be discussed. Unless these jobs are adequately professionalised—with hiring of sufficient cleaning staff to match levels of overcrowding at many public facilities, enforcement of training for cleaners and supervisors, provision of adequate supplies and protective gear for cleaners, and respect—infection control practices will be impossible to follow. This will also require commitment from top hospital leadership to work with staff to reduce prejudicial attitudes and build better team dynamics, oriented towards achieving better patient outcomes. Second, higher quality training is required for all staff to address gaps in understanding of infection and how personal behaviours

matter. Hussein et al (2011) review evidence showing that educational interventions do have an impact on reducing infection, and there is much room for growth among Indian healthcare staff in terms of awareness about infection.

Lastly, better data is essential. Tracking hospital-acquired infection is challenging even in rich countries, but India must start by at the very least systematically collecting data on postpartum infection and causes of maternal mortality. While prospective surveillance methods may be costly, Malhotra et al (2014) demonstrate how point prevalence surveys can at least provide useful information to prevent infection.

Addressing the casteism at the core of India's hospital hygiene problem is more critical than ever today. As Dalit communities are fighting fiercely to rid themselves of the historical stigma associated with their responsibility for the dirtiest of jobs, dreaming that their children will no longer do degrading cleaning work, a silent public health disaster stemming from caste prejudice is on the horizon. Indian society faces a future in which no one is willing to clean. Cleaning work must be professionalised and treated with dignity, and more must be done to understand infection and infection control more accurately, so that patients do not have to suffer the health consequences of poor hospital hygiene. The lives and health of mothers, babies, and the population as a whole depend on it.

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Politics of Social Movements at the Margins

Reflections Based on a Case Study in Mumbai

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Based on the learnings from activists associated with the National Alliance of People's Movements and participants of a social movement at a slum site in Mumbai, the concepts and processes associated with social movement politics are explored. A social movement is a space- and issue-centric collective that gets invoked only when demands are common. Resistance is central to its politics. A social movement is more than just a negotiation with the state; it is also a domain of thinking and implementing alternatives, and opens up the politics of sustainable social change.

In recent years, resistance politics has been on the rise in India. Be it in the rural hinterlands or urban spaces, people at the margins are resisting a host of issues that affect their daily lives. Various state policies are resulting in enforced evictions, destruction of livelihoods and processes that are undermining the idea of democracy. In this context, the nature of interventions by the people at the margins requires serious analysis as this politics has significant implications for the empowerment of the marginalised sections of people it represents. Recent scholarship suggests that politics at the margins in India is in response to governmental welfare technologies or it is a politics that is short-lived and lacks concrete dialectics (Chatterjee 2004; Chakrabarty 2007). It has also been pointed out that this politics aims at achieving visibility and establishing a communication with the state (Mitchell 2014). Other scholarship points out that at the core of this politics lies attempts at enhancing democratic processes and that its goal is much larger (Nilsen 2007). In this paper, I engage with the questions on the nature of politics at the margins carried out as part of social-movement politics. I hope to problematise the ongoing discussions on politics at the margins and discuss how a social movement as a political phenomenon represents this politics. This paper is based on insights from in-depth interviews with select social movement activists and participants associated with the National Alliance of People's Movements (NAPM), an alliance of more than 200 social movements across India, and in-depth interviews of activists and participants of a social movement at a slum site in Mumbai city.

The process of formation of the NAPM began in 1992 in response to the wake of political churning in the early 1990s when the Babri Masjid demolition rocked India. The formation of the NAPM became more formal in 1996. Since its formation, the NAPM has been active on many fronts, and more than 200 social movements across different Indian states are part of this alliance. These social movements are primarily working on issues of land rights, slum housing, development-led displacements, and a host of other issues concerning the informal labour sector in India.

The second site is Ambujawadi, a slum situated in Malad West in Mumbai. It is one of the largest slums in the city, which had faced large-scale demolitions in 2004–05. A report, prepared by Sanjay Sangvai and Raju Bhise (2005), notes that around 90,000 houses were demolished, rendering 4,00,000 women, men and children homeless in Mumbai. The slum site under the study had faced a brutal demolition during this period, and a social movement was formed to resist these demolitions. In the next section, I analyse and discuss the themes that have

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emerged on the nature of politics at the margins operating through the phenomenon of a social movement.

Nature of Space and Issues

Politics at the margins through a social movement appears to be perceived as an intervention in spaces that are under active dispossession. Further, the nature of the space has a close bearing on the nature of demands this politics makes. For example, the issues specific to urban space, such as demands of access to housing in the burgeoning real estate market in Mumbai, right to land, and access to civic infrastructure, are central to politics at the slum site. These issues influence the social movement politics and, in certain ways, decide the agenda of the social movement. The plans of the NAPM are also spatial in character. The NAPM has taken up issues such as resistance to projects like the Delhi Mumbai Industrial Corridor (DMIC),¹ struggles like Plachimada in Kerala against the Coca-Cola plant,² which led to the soft drink company relinquishing its licence, or the anti-special economic zone (SEZ) movements in Maharashtra,³ all of which are space-related interventions. These social movements invoke voting and constitutional rights of citizens as a basis of staking claims to land, housing, and to oppose evictions and displacements. It appears that the idea of citizenship is itself tied to politics around space and rights to a space.

Michael Neocosmos's (2012) arguments are useful in contextualising the relation between space and social movement politics. He suggests that emancipatory politics can take place for the people he refers to as "those who do not count" or are politically in-existent, if they are not made just bearers of the location, but if their political subjectivity is recognised by paying attention to the explanatory foundations, they use to make the displacements for a social change. A question could be raised as to whether the explanatory foundations—such as recognition of citizenship rights, freedom, decentralisation of power, community control, simplicity, equality, a welfare state, and state regulations to curb high levels of capital accumulation—used by the NAPM in its politics are able to address the question of displacements the author theorises, or "act only as a representation of the social space." In other words, does social movement politics make participants simply bearers of their objective location or politicise them as thinking subjects capable of formulating displacements and use it as part of their politics?

The categories used by the NAPM do make the participants thinking subjects, as attempts are made to identify the explanatory foundations collectively, and the participants connected to the movement are thinking subjects capable of reason. However, consider the following statement by Roshen Behen,⁴ one of the social movement participants at the slum site:

We are poor, we will have problems all our lives and we have to do movement to get facilities. The state is not going to give us facilities easily. Movement is part and parcel of our lives.

This narrative indicates a displacement where there is helplessness as well as politics of hope through the social movement. It appears that the explanatory foundations used by the NAPM and the social movement at the slum site do not politicise or pay adequate attention to such specific displacements. These

displacements are different from the explanatory foundations used for social movement politics and suggest rethinking of the nature of interventions through social movement politics. Further, the case at the slum site also suggests that the focus of social movement politics is not about creating and building infrastructure where these displacements are heard, but rather on politicisation of rights of the participants using similar categories that the NAPM adopts for forging an alliance.

Social movements also appear to be issue-specific political interventions. Michael Levien's (2007) analysis of the NAPM shows that the nature of issues taken up is influenced by the immediate socio-economic factors affecting the participants. Sustaining an alliance of movements is difficult as experiences of dispossession are varied for each constituency under the alliance. The frames that NAPM uses are of a pro-people state through decentralisation of power, fair distribution of resources, and community as a site of reform with ideas of a life based on simplicity and equality. The formation of a united social movement of constituencies across different sites is expected to work on these frames. However, the case of the slum site developed for this study suggests that the leaders and other participants expect the social movement to address its immediate and specific needs, such as rights to land and housing and find permanent solutions.

It has been pointed out that the NAPM has not been successful in winning big battles and reversing the major trends of developmental projects (Levien 2007). On the other hand, the present case study shows that resistances with very specific demands and strategies have achieved more success. Similarly, Alf Nilsen's (2007) study of the Narmada Bachao Andolan (NBA) also suggests that politics enacted for everyday demands is able to achieve some positive results, whereas politics based on generalised frames involving strategies of moving judicial machinery have achieved lesser success. The data from the case at the slum site also suggests that resistance with specific goals or issues has been able to achieve some degree of success. These interventions have not been able to give full property rights and access to infrastructure, but the constituency at the slum site is able to stake claims and remain in the space by stalling demolitions or reclaiming land after the demolition. However, these rights are temporary and the constituency is always under the threat of their houses being demolished. The constituency at the slum site wants resistance fashioned on very specific issues such as access to water, roads, and schools, and wants the social movement to address these specific issues. It appears that the idea of a social movement, considered as a protest on specific issues, resonates with the constituency more than a social movement considered as a protest against generalised issues.

Commonality of Demands

At different sites, social movements under the NAPM are resisting displacements and demanding recognition of citizen's rights. Since it is perceived that the effectiveness of social movements depends upon large numbers of people identifying it as their politics, the identification of common demands becomes necessary for social movement politics. The alliance requires consensus-building and unification of dispersed constituencies.

In the process, the idea of the NAPM is to focus on larger systemic changes in the state and community structures. The NAPM focuses on rethinking the ideas of development and the state's democratic responsibility. However, since the focus of social movement politics is on identifying common demands in specific spaces that are under dispossession, as a political project, it may not take place in spaces that continue to be under perpetual deprivations, but where the demands of the people are not perceived to be the agenda of a social movement since a constituency has not been built up. In certain spaces, underdevelopment has become a norm and is perceived as normal. Further, resistance in such spaces, either through a group or individual, does not even get recognised as being involved in some form of resistance. Similar acts of resistance are theorised by Gayatri Spivak (1988) in her seminal essay "Can the Subaltern Speak?"

Post the 2004–05 demolitions, a common demand of housing was politicised by slum dwellers across Mumbai. People from different slum sites who had faced demolition in Mumbai came together to protest and demand housing. This demand got politicised on the terrain of citizenship rather than as workers involved in production. One of the reasons for this can be located in the way labour and production are related. The case at the slum site shows that majority of the members of the social movement are self-employed, casual workers or work for small firms as workers on a piece rate. These processes make the individual's work the centre of production rather than a form of work in which labour is collectively involved. This process restricts possibilities of identifying and formulating demands around labour rights.

Terrain of Labour and Citizenship

Some leaders at the slum site argue that labour for efficient functioning of the city comes from slums. It appears that the city beyond the slum site is perceived as the site of work that employs the labour from the slum. The demand for rights to land and access to infrastructure for a decent living is made on the grounds that this is the labour that the city needs and uses. It can be suggested that the demand of the social movement constituency is politicised on the terrain of labour as well as citizenship. However, even if these demands are made invoking labour as the agent involved in production, the demand is for the right to land and housing rather than demands as workers involved in production. This suggests that, even if the formation of politicisation is on the terrain of labour involved in some form of production, the demand is for citizenship rights.

Spivak (2014), writing on the idea of general strike, suggests that the perceived idea of a general strike is the stoppage of work across different production sectors. She points out that the Marx insight—aimed at inculcating an epistemic change in workers to recognise that they are together the agents of production and if they stop, the production stops—has not been adequately recognised and politicised. The author argues that this insight was not at the centre of the general strikes that occurred in the Western countries, but instead, the demands were for political rights. Analysing this insight with reference to the slum site under consideration, it appears that the insight that "together we are agents of production" is not available to the labour at

the slum site. One of the reasons could be because the social movement participants are involved in diverse labour and without a recognised workspace such as a factory, they do not recognise themselves as a labour force involved in production together. Further, since the constituency of the social movement at the slum site is a residential community, their ties are those of neighbours and not of workers in a common work condition. In such a situation, forming a collective on the idea of agents of production is rendered difficult. The claim around labour is related to the labour put in making the land liveable when the participants first came to the slum site, or the claim that the city gets its labour from the slums and this labour runs the city. Drawing on the insights from the fieldwork, it can also be argued that the electorate/citizens as the agents of general strike can demand and stake claims on the terrain of labour and argue that issues of citizenship and labour are tied together.

Commonality of demands is connected to the question of visibility. Lisa Mitchell's (2014) ethnography of rail blockages in India argues that in recent years, visibility has become central to protests in India. She suggests that acts such as blockages are political actions that are, in fact, attempting to seek recognition, gain an audience, and establish communication with the state. She suggests that with the increased role of the media after the 1990s in India, visibility has become a very central phenomenon of political action. However, only certain groups are able to establish the visibility. The recognition as a process is indicative of what the author refers to as "political arrival." Considering various examples of people resorting to sit-ins and blockages from different Indian states, the author argues that the effort is primarily to establish a visibility rather than actually cause a major disruption. The aim is to make the state acknowledge the problems and to build communication with it. The case developed for this study also suggests that visibility is central to the social movements as the attempt is to make an impact with a large number of participants. However, the objective of visibility is restricted to demands that are common to the constituency. It appears that the politics of the arrival as characterised by Mitchell (2014) is restricted to only certain common demands.

Further, the case in the slum site suggests that not all of the everyday demands are politicised through the social movement. Aniket Jaaware (2016) suggests that it is necessary to keep in mind the everydayness of the notion of both freedom and unfreedom, as this way, both freedom and unfreedom will not be perceived as exceptional cases. Drawing on this suggestion, it is possible to argue that paying attention to what does not get politicised as a demand of resistance through a social movement might provide clues on how a social movement is perceived. Field insights at the slum site suggest that the only certain demands like demolitions, which affect the majority, are made political and the social movement attempts to build the resistance around these demands. Further, the case suggests that the social movement is understood as a form of resistance to any process that creates possibilities of exceptional unfreedom, such as large-scale displacements or lack of rehabilitation. In the process, the need to pay attention to the everydayness of both freedom and unfreedom, does not become the politics of a social movement (Jaaware 2016).

A study by Samapti Guha and Hemangi Patel (2014) analysed the relation between educational attainment of children and the child labour practices at the slum site selected for this study. Their study shows that around 60% of the children at the slum site were engaged in child labour. Further, around 83% of the parents of the children engaged in child labour mentioned that the income earned by the child contributes to the family expenses. Poverty was stated as the main reason for the incidence of child labour practices. The study also shows that the massive demolition carried out at the slum site resulted in households losing their shelter and many children discontinuing schooling after that, and in some cases, these children did not join school at all. Employment of child labour is almost a regular practice at the slum site, which results in curtailing children's freedom and discontinuation of their education. However, resisting this practice had not yet become an agenda of social movement politics at the slum site since the practice of child labour appears to be normalised and participants have not raised it as an issue which the social movement needs to address. The challenge for an alliance like the NAPM is to find and invoke idioms that can resonate with different classes and groups, and that cut across different demands. It can be suggested that the difficulty of organising participants having different demands for a protest in a sustained manner opens up new ways of thinking about resistance and nature of social movement politics in general.

Strategy of Resistance or Protest

The strategy of resistance appears to be central to social movement politics. The case suggests that the social movement as a political response gets equated with resistance or protest. Slogans such as *ladenge jeetenge* (will fight, will win) are central to this politics. The case of the slum site suggests that social movements that are formed in response to immediate forms of violence, or a looming threat like a demolition, are considered as a protest against such acts of the state. The NAPM activists also perceive the social movement as a reaction to specific events, policies or certain forms of development. Since, the main idea of a social movement is organising protest as the case on the slum site indicates, during the period when there is no protest, the movement loses its political centrality. The other fallout of equating the social movement with resistance or protest is that certain processes like the accessing of infrastructure as a result of negotiations carried out with the political party by the constituency are not perceived as part of a social movement activity. For example, at the slum site, the upcoming election played an important role in facilitating access to some civic infrastructure. However, these processes were not considered as part of the social movement, as the idea of a social movement is perceived to be a political response that culminates into an act of protest or resistance.

One of the important insights that emerged at the slum site was that a social movement is perceived to be a continuous and never-ending political process as participants feel that the state will not provide facilities easily. Protest or resistance is perceived as the only way through which the poor are able to address their marginalisation and become political. For the NAPM, the questions of land rights and forced dispossessions are

central to its politics. The attempt seems to be able to organise a protest or resistance and get it politically recognised so that the demands are conveyed to the state. Since, the social movement acts as a reaction to the state actions, though it is perceived as a process of continuous political engagement, it acquires an event-based phenomenon. Further, since the social movement has no connections with any specific political party and ideology but is connected to the ideas of democracy and citizenship, it tends to be invoked in response to specific events or processes where democracy is undermined or where citizenship is to be established. The social movement is then a continuously available political phenomenon but is not active continuously.

Jaaware (2016) suggests moving away from the idea of protest or resistance, where the agency is already conceded to the opposing agent, towards "dissent," which allows for the possibilities of "thinking differently." This argument is useful to analyse the centrality of resistance to social movement politics. The case suggests that the idea of dissent is not central to social movement politics, or, in certain ways, dissent is equated with resistance. Following Jaaware (2016), it is possible to think of dissent as a part of education through the social movement that can open up different ways of thinking about democracy and dealing with both freedoms and unfreedoms of everyday life. As discussed in the earlier theme, the social movement appears to be a space- and issue-specific phenomenon and is invoked to seek justice through protest and resistance for the people in those specific spaces and for those particular issues. It can be suggested that dissent, on the other hand, can be situated in any location and invoked to question power wherever it is applied in an unjust way.

Social Movement Is a Leadership-centric Collective

Leadership is central to social movement politics. The emergence of capable leaders in a social movement is perceived to be a natural phenomenon by the constituency. The data from the case suggests that a social movement in the processes of its formation, develops structures for its functioning and the emergence of leadership is assumed to be a natural social phenomenon. Further, the leaders of a social movement get selected without the rituals of an election as it is assumed that persons with certain pre-existing qualities can become the leaders. As discussed earlier, protest is the central strategy or activity that a social movement employs to seek social justice and for a social movement to be effective, it is perceived that a large constituency is needed. Since, building a strong constituency base for an effective protest is an important and central activity, people who are able to organise this effectively are perceived as the natural leaders of a social movement. For example, the rise of social movements against the demolition of 2004–05 at the slum site saw a rise in leadership, which took upon itself the tasks of organising all the activities of the protests.

With recognition accorded to a leader, a separation between the leader and participants of social movements gets created, making the question of representation important in social movement politics. My observations of various social movement meetings I attended suggest that the leader, as the representative of a social movement, takes up the role of political articulation

on behalf of the social movement constituency. Since, this articulation is perceived as something that the leader is capable of and is a function of being a leader, the attention of education through a social movement is not specifically on the political articulation of the participant members. The education of participants, on the other hand, is directed towards how to effectively participate in a protest organised by the social movements. The role of articulation is perceived as the role of the leaders and the idea gains the acceptance and support of the social movement constituency. As a fallout of this, the building of capacities of political articulation, abstraction and developing ideas is restricted only to certain social movement leadership.

It appears that the functioning of the social movement is dependent on leadership, and for resistance through the social movement to occur, a leader is essential. Further, the recognition of leadership is gendered. For example, in an informal conversation, Amir Bhai, one of the leaders of the social movement at the site, mentioned that leaders should not get married and start a family as it creates obstacles and leaders need full freedom. The intervention of his wife who had bravely entered the slum site when it was occupied by police personnel during the 2004–05 demolitions did not immediately qualify as the intervention of a leader, but rather, her interventions were reduced to a woman taking a political stand to care for her children and save her habitat.

Gramsci's insights have important consequences for thinking about the role of a leader in political actions through a social movement. He makes an important methodological point when he notes that philology, as a method of understanding specific facts, is challenged by the method of law of large numbers; a method borrowed from natural sciences. The application of this law for political studies can result in advancing very "simplistic solutions" and would not, Gramsci argues, "move people out of passivity." Gramsci's observations point out the contradictions and urge us to rethink the approach of political actions. If the aim of a political action is to move the multitude out of passivity, then this cannot be achieved through politics aimed at building large numbers. Discussing the role of the leader in a political action, he suggests that within the realm of politics of large numbers, it is assumed that the capable leader is able to know what Gramsci calls the "standardised sentiments" of all the masses "as an expression of large numbers." Further, it is assumed that the capable leader is able to translate "idea as force to words as force." He suggests that an alternative would be for the "collective organism" to take up the leadership role instead of an individual. However, he cautions that this would lead to turmoil unless the collective organism is so embedded that it is able to know the "sentiments through immediate particulars." He terms this as "a system of living philology" (Buttigieg 2011: 159).

The case developed as part of this study indicates that the centrality of a leader for movement politics is related to the question of visibility. The visibility of a movement as a political action is heavily dependent on the visibility of a leader, and this politics is based on the assumption that a support of large numbers is needed for effective social movement politics. Gramsci's insights are useful for thinking of the nature of political action through a social movement and raise the question

of whether there is a need to think of social movement interventions, which do not primarily aim at building a constituency and follow an unmediated process of letting the leaders emerge, as a natural process of social movement politics.

More Than Negotiations with State

It has been suggested by Partha Chatterjee (2004)⁵ that the politics of the poor is aimed at a negotiation with the state for access to its services, and through this process, in some instances, this politics is able to access the state services, albeit for a short period. It has been argued by Dipesh Chakrabarty (2007) that the politics of the multitude is short-lived and lacks a concrete dialectic. The multitude in this form of politics is not interested to see if their demands are met, but is managed through acts on the part of the state that allows the multitude to perceive and feel that they, in fact, rule the sovereign. I examine these arguments here.

I suggest that social movement politics is not necessarily restricted to ideas of negotiations around governmentality, as suggested by Chatterjee (2004), and is also not only a reaction of the multitude without any concrete dialectic, as argued by Chakrabarty (2007). My study shows that social movements are also sites of politics that are aimed at achieving equality rather than just negotiation politics around governmentality. The politics through social movements open up discussions and actions intended for justice and equality within a democratic set-up. Further, these collectives also propose alternative frameworks and ways in which state power needs to be used. Education through the social movement is aimed at building perspectives about democracy, and slogans such as *hum sab ek hai* (we are all one) or *ladenge jeetenge* (will fight, will win) are part of the politics of achieving equality for all. The Ghar Bachao Ghar Banao (GBGB) Andolan⁶ does not conform to the idea of a political society as proposed by Chatterjee (2004) as it signifies an ongoing social movement to fight for the housing right of the slum dwellers in Mumbai. The NAPM also does not conform to the idea of a political society as its agenda is not restricted to merely negotiating with the state, but it is perceived as an alliance of various social movements to obtain justice for the poor. It advances its arguments for a more democratic state. The nature of politics through a social movement emerging from this study suggests that even if a movement is a spatial phenomenon with a restricted constituency, the GBGB or the NAPM are also sites that open up questions of universal access and equality. The analysis of perspectives of the participants at the slum site also indicates that these perspectives envision a welfare state and equal access for all. These views demonstrate democratic aspirations to achieve social justice, as opposed to a political society, which characterises the politics of people at the margins as a process restricted to self-protection and management of the state to access and stake claims to the state's welfare.

The second point I engage with is the argument by Chatterjee (2004) that politics at the margins is able to use governmentality to its advantage. Insights from the case on the slum site suggest that the constituency of the social movement encounters and uses informal market arrangements to access facilities for their daily needs, including housing. These processes work through

informality and privatisation of supply of essential services, and keep land and labour in an informal contract. This suggests that participants at the slum site are not necessarily always able to seek welfare services through governmentality but are forced to use informal market mechanisms. I find that these processes defuse the emergence of a political society as characterised by Chatterjee.

Social movement politics is not necessarily just a short-lived process. Chakrabarty (2007) suggests that the politics of the multitude results in creating perceptions of a victory, which are short term, and this multitude does not engage itself to find out if actual change has taken place. This politics does not foresee a continuous engagement. However, the case of the slum site reveals that the social movement appears to be a tool that is always available to the people and is used whenever there is a threat of demolition. The politics of the multitude in response to questions of housing and claiming of the land rights, though not continuously active, is much more than a short-lived process. This politics creates possibilities to establish some form of right to housing even when the majority does not have properly defined property rights. Further, this politics of the multitude invokes the dialectic through arguments of constitutionalism, rights of labourers in the city and the right to vote as an important power of the people in a parliamentary democratic system.

Conclusions

Social movements are an important political intervention. In the present context of globalisation, the meaning of what is understood and perceived as a social movement is complicated by various factors. These factors influence how it is perceived,

what gets politicised through it, and what it misses or excludes. Unlike identity-based movements where the demand is for laws for rights of people possessing a specific identity, the agenda of the social movements under the study is to demand and establish citizenship rights for the informal, dispersed labour working on informal contracts. The core demand of this labour is for citizenship in the expanding informal sector production. However, although these social movements represent informal sector workers, its political interventions are space- and issue-specific with demands for citizenship rights. Based on an analysis of the case, I suggest that paying attention to education and bringing it to the centre of social movement politics would be an important strategy to sustain social movements. The subject formation under this process would not only be subjects resisting, but rather, subjects who dissent the ways in which the idea of democracy is thought about and acted upon. Approaching social movement politics on the terrain of education of dissent might open up more possibilities of building connections with both, other diverse dissenting groups and diverse issues where the aim is to seek social justice and freedom through thinking about democracy differently. Danny Butt's (2015: 7) reading of Spivak's *Aesthetic Education in the Era of Globalization* suggests that "education toward freedom can only emerge when one can abstract one's own experience in order to connect it with others, and thus to work together on a shared political struggle." I suggest that paying attention to education with the objective of developing abilities of connecting with others would open up important ways in which social movement politics develops, builds its constituency and the nature of responses it formulates to address various forms of exclusions.

NOTES

- 1 The Delhi–Mumbai Industrial Corridor (DMIC) is a proposed infrastructure development programme with an aim of creating futuristic industrial cities. The proposed project would involve land acquisitions in Uttar Pradesh, Haryana, Rajasthan, Gujarat, Maharashtra and Madhya Pradesh in India. The project is facing resistance from farmers. See Kumar (2015).
- 2 The Coca-Cola plant in Plachimada in Kerala India faced resistance to huge drawing of water resources by the company, which was affecting the agricultural production. The company stopped its production.
- 3 A report by Sampat Kale (2010) notes that the state of Maharashtra witnessed huge resistance to special economic zone projects, especially from farmers. These proposed interventions were opposed on the grounds that they were anti-people and anti-farmer projects.
- 4 Interview conducted in Mumbai on 30 November 2013.
- 5 Chatterjee proposes a framework that distinguishes the political process into the domain of civil society and political society. In the case of the former, citizenship is at the centre of political discourse and demands are made on the sovereign nation state as citizens. The other political process is played out within the domain of what the author calls the "political society." The political society is informal associations whose politics is not strictly argued solely on the grounds of legality but nevertheless is able to claim some rights on the state welfare structures. The main argument, the author proposes, is that the political society is able to use governmentality inaugurated by the state to its advantage. Political society, for the author

is then a site of politics aimed at negotiations in response to governmental technologies of welfare.

- 6 The Ghar Bachao Ghar Banao (GBGB) Andolan was formed in response to the slum demolitions carried out in Mumbai in 2004–05. Since then, the GBGB Andolan is active in many sites in Mumbai and works for housing rights of the poor.

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The 'Missing Middle' Problem in Indian Manufacturing

What Role Do Institutions Play?

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The Indian manufacturing sector, with few mid-size firms, has the problem of the “missing middle.” The critical constraint is imposed by “predatory institutions” and their corruption that mid-size firms face in their day-to-day interactions with the state. The current policy approach towards improving the ease of doing business by reforming regulatory institutions is not enough in this case. To solve the missing middle problem, lower-level bureaucrats engaged in petty corruption need to be disciplined, and government procedures should be made transparent and accountable to reduce the scope for such corruption.

Few firms are to be found in the mid-size category of the firms in the Indian manufacturing sector. This “missing middle” is related to the wider problem of dualism—small, unproductive firms co-exist with large, productive ones. The problem of dualism has negative implications for pro-poor growth, as most of the working poor in urban areas are employed in the smaller firms, which do not tend to grow over time (Raj and Sen 2016). However, research, exploring the lack of mid-size manufacturing firms in India, is limited,¹ while there is much emphasis in the current government policy along with a great deal of interest among the policy practitioners to ease the constraints of doing business in India.

Institutional constraints take many forms—from the lack of property rights to regulatory impediments to the presence of corruption. From a policy perspective, it is important to know which institutions disincentivise small firms from growing and entrepreneurs from setting up mid-size firms. The literature on Indian manufacturing recognises the problem of the missing middle, and it suggests that the number of mid-size firms is constrained by infrastructural deficiencies (such as lack of reliable electricity), labour regulations, credit constraints, and (the absence of) the ease of doing business (Mazumdar and Sarkar 2013; Ramaswamy 2013). But these explanations are mostly suggestive and lack empirical evidence, and do not explain which factors are of utmost importance.

This article attempts to address this gap. It focuses on institutional factors, and it aims to identify the key institutional determinants of the evolution and persistence of the missing middle in the Indian manufacturing sector. It follows a novel approach. It uses data self-reported by Indian firms on a variety of impediments they face. This data is drawn from the Enterprise Surveys² conducted by the World Bank for formal and informal firms. The data is combined into a pooled data set that covers the continuum of firms in Indian manufacturing—from the smallest to the largest. The data are a combination of objective and subjective measures of the constraints firms face. For example, firms are asked on how many days they take to obtain a construction permit, which is an objective measure. They are also asked how important they see a factor (say, labour regulations) in constraining their activities, which is a subjective measure. The combination of objective and subjective measures in the data guards against the weakness of one set of measures against the other (Amissah and Stack 2016).

The Enterprise Surveys are rich and allow to test for those set of institutional constraints that are more binding for the mid-size Indian manufacturing firms than for the small and large ones.

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This is done by the means of a descriptive analysis of institutional measures and by econometric analysis that explicitly tests which constraints are more important for mid-size vis-à-vis other firms, after controlling for other possible influences on firm size.

The 'Missing Middle' in Indian Manufacturing

This section sets out the missing middle problem in Indian manufacturing. Firm-level data for the entire manufacturing sector, including both formal and informal firms, are needed to describe the missing middle problem. The data set is constructed by combining the microdata on formal firms obtained from the Annual Survey of Industries (ASI) with the data on informal firms drawn from the National Sample Survey Office (NSSO) surveys of the unorganised manufacturing sector. This data set covers three periods: 2000–01, 2005–06, and 2010–11 and represents a continuum of firms from the smallest (except household enterprises) to the largest.

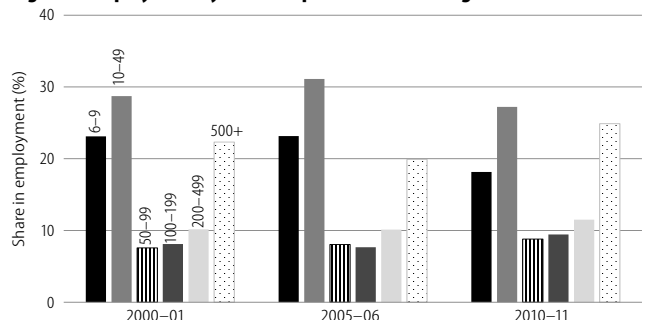
To put the size distribution of Indian manufacturing firms into perspective, informal sector firms that employ 6–9 workers (employing mostly hired labour) are included with formal sector firms (Figure 1). This analysis shows a dualistic structure and that the size distribution of firms is bipolar—in line with the available evidence. Two prominent modes are found on the left of the employment distribution (represented by the 6–9 and 10–49 categories) and on the right (represented by the 500+ category), and a striking trench is found in the share of employment in the intermediate size categories (50–499 workers). Almost 75% of the Indian manufacturing workforce is concentrated in the smallest categories (6–9 and 10–49 workers) and the largest categories (500+), and the remaining 25% is distributed among the intermediate categories. Thus, the Indian manufacturing sector has many small firms and some large firms but few medium-size firms.

There has been little change in the distribution of firm size between 2000–01 and 2010–11. The economic distance between small and large firms is substantial: firms in the 500+ category were about 13 times more productive (in 2010–11) than firms in the 6–9 size category in 2010–11 (Figure 2); the productivity gap has also widened, from 1:11 in 2000–01 to 1:13 in 2010–11. Creating the institutional environment to help small firms grow to become mid-size firms can improve the manufacturing sector's growth and productivity, and it calls for identifying the constraints to the growth of firms in terms of size and scale.

Data

To identify the key determinants, a source of data across the entire continuum of firm sizes for the Indian manufacturing sector is required. Few data sets impart information for both small (informal) and large (formal) firms in India and include indicators that allow for the objective measurement and comparison of the business environment, its binding constraints, and the quality and integrity of supportive and regulatory public services. Many public databases supply information separately for formal and informal firms. However, combining the data sets for formal and informal sectors into one will have less utility as these data sources lack information on the availability of the types of institutions and their quality as

Figure 1: Employment by Size Groups in Manufacturing Firms in India

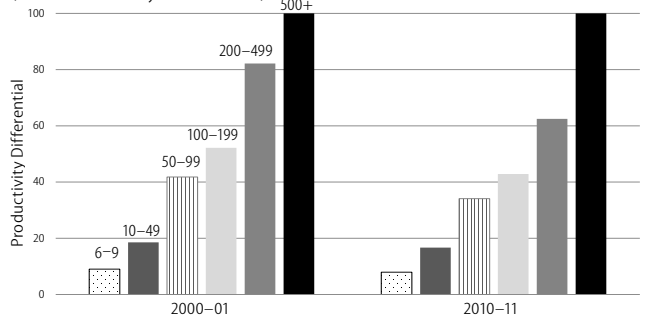


Category 6–9 stands for firms with 6 to 9 workers, category 10–49 stands for firms with 10 to 49 workers and other categories have to be understood similarly.

Source: Authors' computations based on ASI and NSSO data.

Figure 2: Labour Productivity Differential by Size Groups

(Labour Productivity of 500+ = 100)



Category 1–5 stands for firms with 1 to 5 workers, category 6–9 stands for firms with 6 to 9 workers and other categories have to be understood similarly.

Source: Authors' computations based on ASI and NSSO data.

perceived by firms. A data set is needed that covers firms along the continuum of the entire manufacturing sector and that imparts important insights into what is needed to improve the business environment—based on what firms themselves say about the conditions they need to grow and the constraints they face. The World Bank Enterprise Surveys on Indian firms constitute such a data set.

For informal firms, data are drawn from a survey conducted among the informal enterprises in India by the World Bank in 2006. The basic survey units were establishments with 10 or fewer full-time paid employees. The data obtained from the NSSO's 56th survey of unorganised manufacturing enterprises formed the base frame for sampling. The survey employed a combination of stratified, cluster, and snowballing techniques to decide on the enterprises to include in the sample. Cities were identified using stratified techniques and split into industrial clusters, and snowballing techniques were applied to identify enterprises in various industry sectors. The informal manufacturing Investment Climate Survey (ICS) covered 1,549 enterprises in six major industrial clusters in four regions of India: Delhi and Ludhiana (north), Mumbai and Thane (west), Howrah (east), and Hyderabad (south). Based on the proportion of shares in the aggregate sectoral output, the sample was drawn from nine manufacturers: auto components, chemicals, electrical goods, electronics, food processing, garments, leather, metal, and machine tools and textiles.

Data on formal firms are obtained from a similar enterprise survey of formal firms—"Firm Analysis and Competitiveness Survey of India" (FACS)—conducted by the World Bank in conjunction

with the Confederation of Indian Industry (CII) in 2005. Manufacturing sector firms constituted the universe for this survey, and the sampling frame for manufacturing establishments was obtained from the ASI. The survey was conducted from March 2005 to July 2005 on a random selection of 2,286 manufacturing firms sampled from 49 cities in 16 states: Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Orissa (renamed “Odisha”), Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal. The survey covered industries such as auto components, drugs and pharmaceuticals, electrical goods, electronics, food products, garments, leather and plastic products, metal products, paper and paper products, rubber products, and textiles.

These surveys were conducted separately in adjacent years (2005 and 2006), but they collected comparable information that include subjective evaluations of obstacles and objective hard data numbers with direct links to growth and productivity. The ICS and FACS data were merged so that the data on the key institutional variables were comparable. Though both surveys used the same survey instrument for data collection, utmost care has been taken to match the information in the data sets. Following matching, the final data set held 3,835 firms (1,549 informal firms and 2,286 formal firms).

While the formal sector data set is nationally representative, the data set for the informal sector is non-random and under-sampled. The informal sector survey covers only a few cities and sectors. The results from the merged data set should be viewed with caution, due to the less representative nature of the data for the informal sector, and circumspection exercised in generalising these results to the population of firms.

Construction of Variables

This article aims to examine the role of institutional bottlenecks in firm transition. Therefore, variables pertaining to three broad categories—firm size, institutional environment, and firm characteristics—are constructed.

Firm size: To see whether these institutional constraints are more binding on certain types of firms and less binding on others, this study classifies firms into seven categories based on the number of workers they employ (firm size) as in Mazumdar and Sarkar (2009, 2013) and Ramaswamy (2013): fewer than six workers (1–5); more than five and fewer than 10 (6–9); 10–49 workers (10–49); more than 50 but fewer than 100 (50–99); more than 99 but fewer than 200 (100–199); 200–499 workers (200–499); and firms employing 500 or more workers. Most of the sample (38%) was made up by firms in the 10–49 category, and the proportion of firms in the 1–5 and 6–9 categories is almost the same (21%). Of all the firms, 7% are in the 50–99 category, 6% in the 500+ category, and 3% each in the 100–199 and 200–499 categories.

Institutional environment: This article aims to examine the relationship between the types of institutions and the transition of firms in the Indian manufacturing sector. Variables that represent the types of institutions in the country need to be constructed. The matched data set is used to identify questions

that can be used to measure these distinct types of institutions. Based on the information available in the data set, five broad dimensions of institutional quality are identified: property rights and taxation; social and physical infrastructure; law and order; corruption; and the regulatory environment. Variables are assigned to capture the nature and quality of institutions for each of these dimensions (Table 1, p 54).

Firm characteristics: The usual set of variables used in firm-level studies is employed in this study as control variables. These variables help to control for the influence of firm-specific characteristics and, thereby, capture the exact role of institutional variables in firm transition. The firm-specific characteristics employed in this article control broadly for the firm owner’s age, ownership, experience, and education, and for the workers’ education and training. The variable “age” represents the age of the firm, and it is defined as the number of years (plus one) elapsed since the year the establishment began operations. To avoid ages of zero, one year is added. The “partnership” variable is derived from the question on a firm’s current legal status, and it is constructed as a binary variable.

The categories of a firm’s legal status are sole proprietorship, limited partnership, partnership, shareholding company, and others. Firms that are not proprietorships take the value 1, and proprietorship firms take the value 0. The influence of owner- or worker-level characteristics on firm transition is also controlled for. The owner-specific control variables are the manager or owner’s average number of years of experience (expown) and education (edown). “Edown” is an ordered variable. It is coded 1 for “illiterate” managers or owners or for those with fewer than nine years of schooling or those who did not complete secondary school; 2 for those who completed secondary school or higher secondary school; 3 for those with vocational training or some university training or those with some college education but not a graduate degree; and 4 for firm owners with a graduate, postgraduate, or doctoral degree. The variables for worker-specific characteristics are “training” and “avgedn.” “Training” represents a dummy variable for training; it takes the value 1 for firms with trained workers (or workers given internal or external training or both) and 0 for others. The variable “avgedn” is an ordered variable; it is ordered 1 for 0–3 years of education, 2 for 4–6 years, 3 for 7–12 years, and 4 for 13 or more years of education.

In this data set, the median age of firms is 12 years, and the mean is 15 years. Over 60% of the firms are owned and run by sole proprietors; the rest are partnerships. The firm owners averaged 12 years of experience, and over 50% are graduates. The level of education at the firm level averaged 7–12 years. Only 12% of firms are reported to employ workers with some training, formal or informal.

Methodology

Along with graphical illustrations, a simple multivariate regression analysis is employed to see whether firms’ perceptions on different growth constraints are evenly or unevenly distributed across firm size categories. Our basic model takes the form

$$IC_j = \alpha_0 + \sum_{k>0} \beta_k \text{size}_j + \sum_{i>0} \gamma_i \text{FIRM}_j + \mu_i + \delta_c + \varepsilon_j \quad \dots (1)$$

Table 1 Construction of Institutional Variables from the FCS and ICS

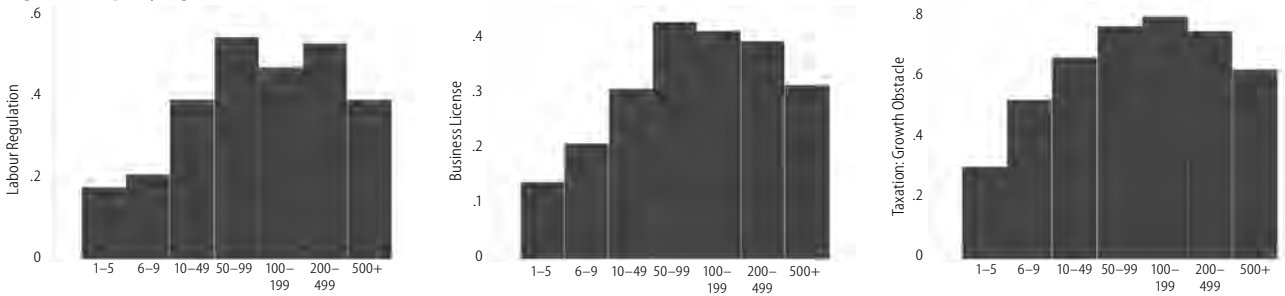
SlNo	Dimension/Variable	Definition	Survey Question
Property rights and taxation			
1	Labregu*	Binary variable; 1 = labour regulations an obstacle, 0 = not an obstacle	Whether labour regulations represent a major problem for the operation and growth of your business?
2	Licpmt*	Binary variable; 1 = business licensing and operating permits as an obstacle, 0 = not an obstacle	Whether business licensing and operating permits represent a major problem for the operation and growth of your business?
3	Taxobst*	Binary variable; 1 = high taxes and tax administration an obstacle, 0 = not an obstacle	Whether high taxes and tax administration represent a major problem for the operation and growth of your business?
Social and physical infrastructure			
4	Finance*	Binary variable; 1 = access to and cost of financing an obstacle, 0 = not an obstacle	Whether access to and cost of financing represent a major problem for the operation and growth of your business?
5	Land*	Binary variable; 1 = access to land an obstacle, 0 = not an obstacle	Whether access to land represent a major problem for the operation and growth of your business?
6	Ednwrk*	Binary variable; 1 = lack of skilled and educated workers an obstacle, 0 = not an obstacle	Whether lack of skilled and educated workers represent a major problem for the operation and growth of your business?
7	Power*	Binary variable; 1 = inadequate power supply an obstacle, 0 = not an obstacle	Whether inadequate power supply represent a major problem for the operation and growth of your business?
8	Telcom*	Binary variable; 1 = inadequate telecommunications an obstacle, 0 = not an obstacle	Whether inadequate telecommunications represent a major problem for the operation and growth of your business?
9	Transport*	Binary variable; 1 = poor transport facilities an obstacle, 0 = not an obstacle	Whether poor transport facilities represent a major problem for the operation and growth of your business?
Law and order			
10	Crime*	Binary variable; 1 = crime, theft and disorder an obstacle, 0 = not an obstacle	Whether crime, theft, and disorder represent a major problem for the operation and growth of your business?
11	Security**	Binary variable; 1 = firm paid for security, 0 = not paid	Did this establishment pay for security, for example for equipment, personnel, or professional security services?
12	Overdue	Number of days it took to resolve an overdue payment	In general, how many days does it typically take to resolve an overdue payment with customers in direct negotiations?
13	Court*	Binary variable; 1 = legal system/conflict resolution an obstacle, 0 = not an obstacle	Whether legal system/conflict resolution represent a major problem for the operation and growth of your business?
Corruption			
14	Corrpt*	Binary variable; 1 = corruption an obstacle, 0 = not an obstacle	Whether corruption represents a major problem for the operation and growth of your business?
15	Contract	Binary variable; 1 = gift or payment was expected, 0 = not expected	When establishments in your industry do business with the government, is a gift, or informal payment expected to secure the contract?
16	Telgift	Binary variable; 1 = gift or payment was expected, 0 = not expected	Was an informal gift or payment expected or requested to obtain a mainline telephone connection?
17	Elecgift	Binary variable; 1 = gift or payment was expected, 0 = not expected	Was an informal gift or payment expected or requested to obtain an electrical connection?
18	Watergift	Binary variable taking the value 1 if a firm reported that gift or payment was expected, 0 otherwise	Was an informal gift or payment expected or requested to obtain a water connection?
19	Conpmtgift	Binary variable; 1 = gift or payment was expected, 0 = not expected	In reference to the application for a construction-related permit, was an informal gift, or payment expected or requested?
20	Oplicgift	Binary variable; 1 = gift or payment was expected, 0 = not expected	Was a gift or informal payment asked for or expected to obtain main operating licence?
21	Paygovtoff	Binary variable; 1 = gift or payment was expected, 0 = not expected	Over the last 12 months, was a gift, or informal payment expected or requested during the visit by government officials?
22	Paymunoff	Binary variable; 1 = gift or payment was expected, 0 = not expected	Over the last 12 months, was a gift, or informal payment expected or requested during the visit by municipal officials?
23	Paypolice	Binary variable; 1 = gift or payment was expected, 0 = not expected	Over the last 12 months, was a gift, or informal payment expected or requested during the visit by police?
Regulatory environment			
24	Nvisitgovt	Number of visits	Over the last 12 months, how many times was this establishment either inspected by government officials or required to meet with them?
25	Nvisitmun	Number of visits	Over the last 12 months, how many times was this establishment either inspected by municipal officials or required to meet with them?
26	Nvisitpolice	Number of visits	Over the last 12 months, how many times was this establishment either visited by police or required to meet with them?
27	Ntotvisit	Total number of visits	Over the last 12 months, how many times was this establishment visited by any officials or agencies?
28	Pertimregu	Percentage of Time spent	In a typical month over the last 12 months, what percentage of owner's time was spent in dealing with requirements imposed by government regulations?
29	Waittel	Number of days	What was the actual wait experienced for obtaining telephone connection?
30	Waitelec	Number of days	What was the actual wait experienced for obtaining electrical connection?
31	Waitwater	Number of days	What was the actual wait experienced for obtaining water connection?
32	Waitconpmt	Number of days	What was the actual wait experienced for obtaining construction-related permit?
33	Waitoplic	Number of days	What was the actual wait experienced for obtaining main operating licence?

FCS = Firm Analysis and Competitiveness Survey of India and ICS = Investment Climate Survey of Micro Enterprises.

*in the case of FCS, the firms were asked to judge the severity of the obstacle on a four-point scale where 0 = No obstacle, 1 = Minor obstacle, 2 = Moderate obstacle, 3 = Major obstacle, and 4 = Very Severe Obstacle For these firms, the binary variable takes the value 1 for firms that consider it as an obstacle (irrespective of its severity) and 0 for those that do not consider it as an obstacle

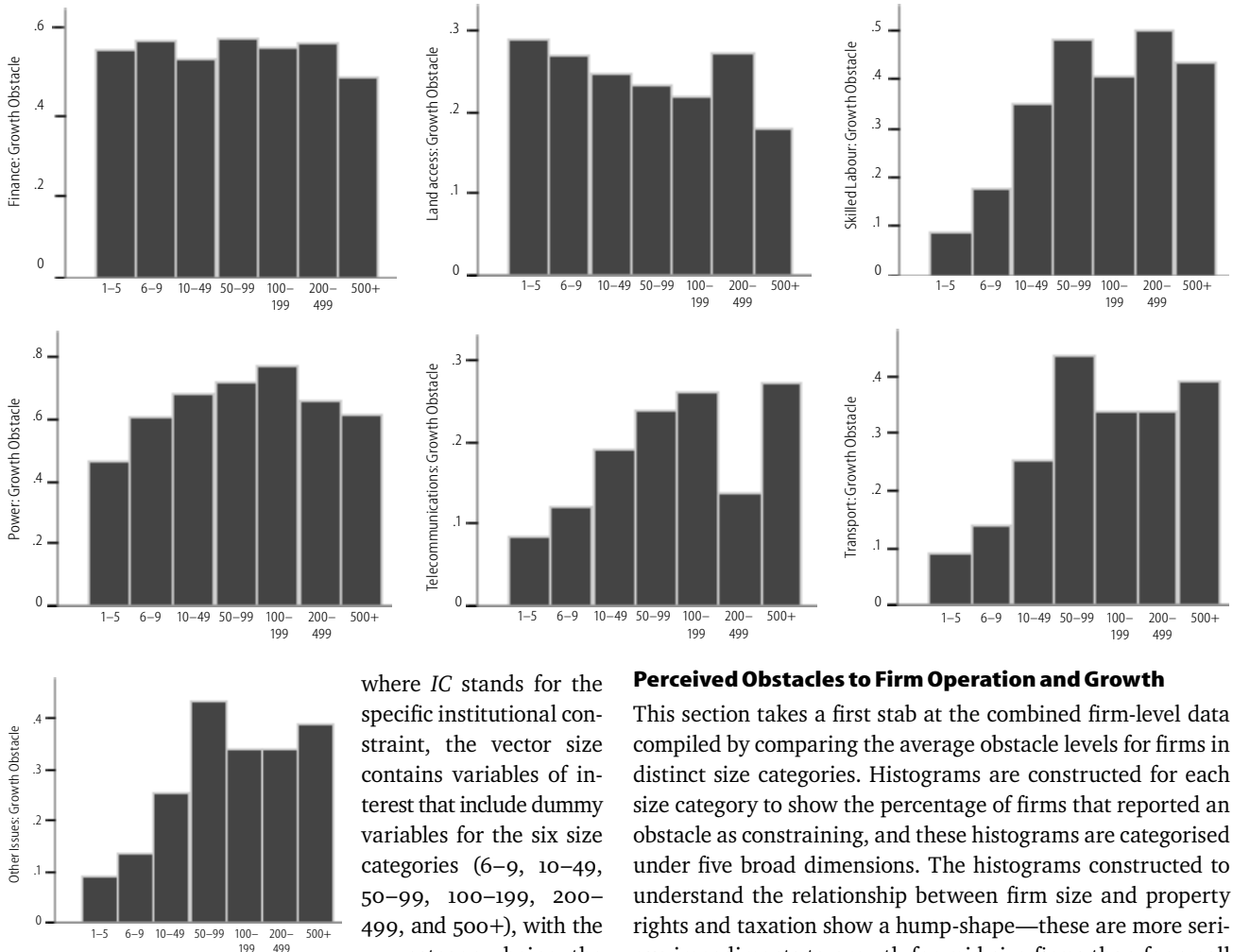
**This question was not directly asked to the FCS firms, hence we constructed this variable by assigning value 1 for firms that reported costs incurred on security related to crime

Figure 3: Property Rights and Taxation



Source Authors' estimates.

Figure 4: Social and Physical Infrastructure



Source Authors' estimates.

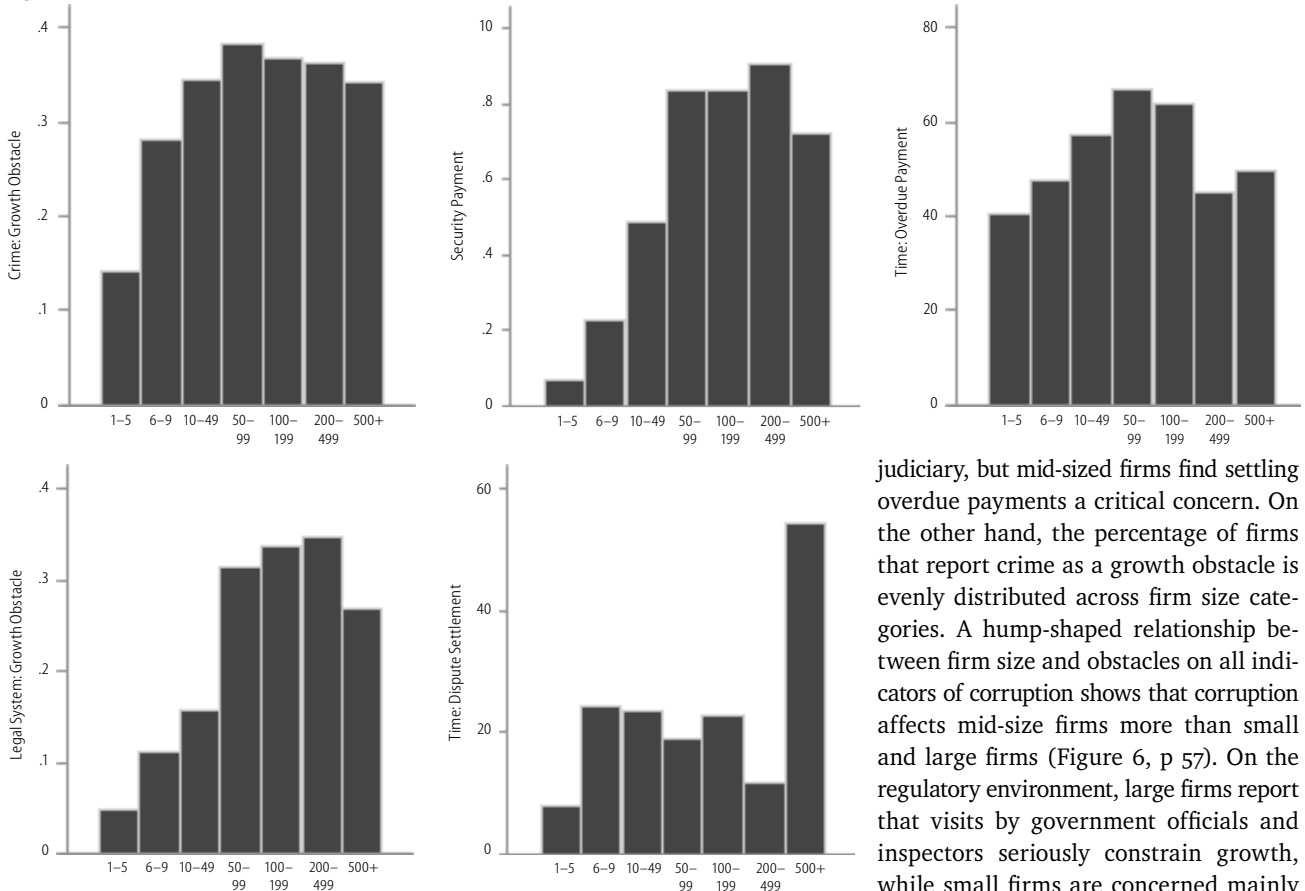
where IC stands for the specific institutional constraint, the vector size contains variables of interest that include dummy variables for the six size categories (6-9, 10-49, 50-99, 100-199, 200-499, and 500+), with the 1-5 category being the base category. If certain institutional constraints are more relevant for mid-size firms than for small and large firms, the coefficient of firm size is expected to be significant for mid-size firms and larger in magnitude. The vector $FIRM$ contains variables standing for firm-specific characteristics. Six firm-specific characteristics are controlled for age, partnership, expown, edown, training, and avgedn. μ_i stand for industry dummies and δ_c for city dummies. Equation (1) is estimated by the ordinary least squares method when the institutional constraint is a continuous variable and by ordered probit when it is an ordinal measure.

Perceived Obstacles to Firm Operation and Growth

This section takes a first stab at the combined firm-level data compiled by comparing the average obstacle levels for firms in distinct size categories. Histograms are constructed for each size category to show the percentage of firms that reported an obstacle as constraining, and these histograms are categorised under five broad dimensions. The histograms constructed to understand the relationship between firm size and property rights and taxation show a hump-shape—these are more serious impediments to growth for mid-size firms than for small and large firms (Figure 3). More mid-size firms than small and large firms report that the government is inefficient in delivering infrastructure-related services (Figure 4). Access to power, transport, and telecommunications are their top three constraints. Small firms worry over land access more than medium and large firms. The results of this analysis show that all firms are equally constrained in obtaining finance, contrary to the idea that small and medium firms are financially more constrained than large firms. The finding on access to skilled labour suggests that it is harder for medium and large firms than small

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Figure 5: Law and Order



Source Authors' estimates.

Table 2: Firm Size and Institutional Constraints: Regressions for Property Rights and Taxation and Social and Physical Infrastructure

Variable	Property Rights and Taxation				Social and Physical Infrastructure				
	Labregu	licpmt	taxobst	finance	land	ednwrk	power	telcom	transport
6-9	-0.125 (0.089)	0.164* (0.087)	0.436*** (0.081)	0.062 (0.077)	-0.148* (0.080)	0.256*** (0.108)	0.161** (0.080)	0.368* (0.196)	0.009 (0.117)
10-49	0.236*** (0.085)	0.272*** (0.087)	0.545*** (0.082)	-0.060 (0.078)	-0.131 (0.083)	0.494*** (0.104)	0.239*** (0.082)	0.504*** (0.189)	0.082 (0.114)
50-99	0.380*** (0.136)	0.383*** (0.139)	0.710*** (0.151)	0.145 (0.135)	0.536*** (0.143)	-0.069 (0.150)	0.591*** (0.150)	0.446** (0.222)	0.389*** (0.154)
100-199	0.214 (0.171)	0.304* (0.173)	0.667*** (0.190)	0.119 (0.171)	-0.056 (0.179)	0.411** (0.183)	0.559*** (0.196)	0.544*** (0.250)	0.129 (0.188)
200-499	0.301* (0.170)	0.194 (0.176)	0.360** (0.183)	0.091 (0.170)	0.026 (0.179)	0.683*** (0.182)	0.287 (0.191)	0.095 (0.272)	0.153 (0.189)
500+	0.136 (0.200)	0.273 (0.202)	0.384* (0.211)	0.017 (0.190)	-0.213 (0.229)	0.547*** (0.205)	0.105 (0.212)	0.529** (0.269)	0.105 (0.212)
Constant	-1.692*** (0.709)	-0.686 (0.639)	-1.707*** (0.622)	0.305 (0.642)	1.030*** (0.342)	-1.879*** (0.695)	-0.403 (0.629)	-1.879*** (0.690)	-1.480*** (0.696)
R2/PseudoR2	0.21	0.15	0.27	0.18	0.14	0.30	0.29	0.27	0.31
F/LR chi2	775.15	534.99	1,107.70	732.58	476.02	1,009.97	1,172.96	520.09	924.05
N	2,983	2,996	2,925	3,062	3,018	3,085	2,956	2,217	3,092

(a) Robust standard errors are in parenthesis. * implies significant at 10%, ** at 5% and *** at 1% level of significance.

(b) See Table 1 for definition and measurement of explanatory variables. (c) In all specifications, we controlled for firm specific characteristics, and industry and city effects as control variables.

Source: Authors' estimates.

firms to find educated and skilled workers and it is a more serious constraint to growth.

Regarding constraints relating to law and order, priorities change according to size (Figure 5). Large firms are concerned over making payments towards security services and the

judiciary, but mid-sized firms find settling overdue payments a critical concern. On the other hand, the percentage of firms that report crime as a growth obstacle is evenly distributed across firm size categories. A hump-shaped relationship between firm size and obstacles on all indicators of corruption shows that corruption affects mid-size firms more than small and large firms (Figure 6, p 57). On the regulatory environment, large firms report that visits by government officials and inspectors seriously constrain growth, while small firms are concerned mainly over visits by the police and the time taken to obtain an operating licence (Figure 7, p 58). Mid-size firms, on the other hand, are more concerned about the time taken to get access to public services such as power, telecommunications, and water supply.

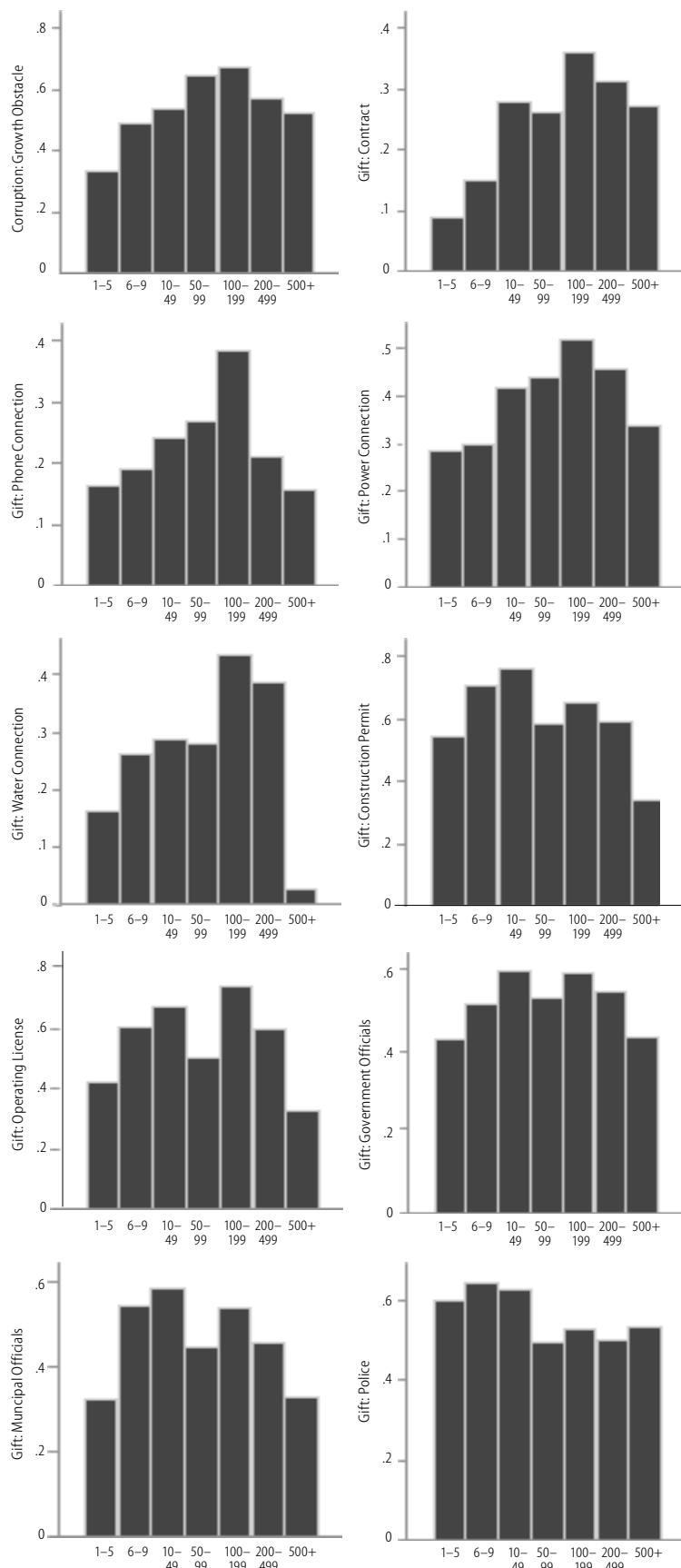
This descriptive analysis suggests that, overall, mid-size firms face stronger institutional constraints than small and large firms, evident particularly with respect to corruption, poor law and order, and the absence of property rights, where mid-size firms seem to face the highest constraints.

Empirical Analysis

There are differences between the constraints faced by mid-size firms and those faced by small and large firms. To test whether these differences are statistically significant in this regression analysis,

the estimates of Equation 1 are presented. Firm size is captured by a series of dummies: 6-9, 10-49, 50-99, 100-199, 200-499, and 500 and above. The firms in the 1-5 size category serve as the comparator. The main aim is to see whether firm size changes a firm's perceptions of institutional constraints.

Figure 6: Corruption



All these estimations control for other firm characteristics: the age of the firm (age); ownership (partnership); the owner's education (eddown) and experience (expown); training given to workers (training); and the worker's education (avgedn). Finally, industry dummy variables are included to control for sector-specific effects and dummies for cities are introduced to control for region-specific effects. These controls allow for the incorporation of other influences on institutional constraints, such as the industry or city the firm is located in. Further, since the institutional measures are self-reported data, firms with better educated or more experienced managers or owners may report constraints more accurately than those less educated or experienced.

The purpose of the regression analysis (Table 2–5, pp 56 and 59) is to show whether the inverted u-shaped relationship between institutional variables and the size distribution of firms remain true in a multivariate framework; the intention is not to make causal inferences on whether firm size itself is a determinant of the institutional constraint that a firm may face. Table 2 reports the regression results for two broad dimensions: property rights and taxation, and social and physical infrastructure. Under the dimension of property rights and taxation, three institutional constraints as perceived by firms—“labregu,” “licpmt,” and “taxobst”—are considered. Labour regulations, licences, and permits constrain firms in the 10–49 and 50–99 categories more than small and large firms. This is clear from the positive and highly significant coefficients of these two size categories in regression estimations.

Table 3: Firm Size and Institutional Constraints: Regressions for Law and Order

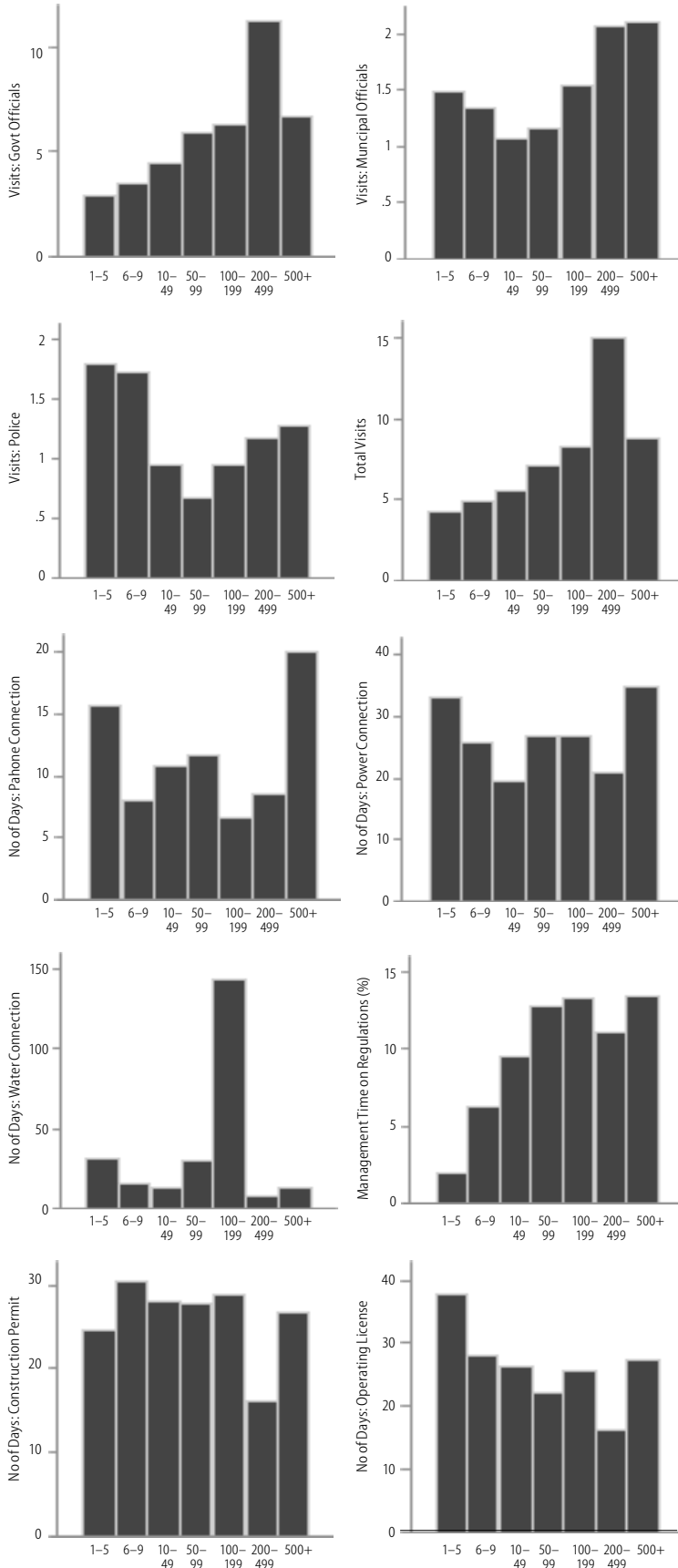
Variable	Law and Order			
	Crime	Security	Overdue	Court
6–9	0.383 (0.087)	0.401*** (0.108)	0.803 (3.693)	0.129 (0.124)
10–49	0.398 (0.088)	0.967*** (0.103)	5.228 (3.718)	0.111 (0.121)
50–99	0.348 (0.139)	1.595*** (0.159)	6.444 (6.627)	0.358** (0.164)
100–199	0.450 (0.171)	1.565*** (0.200)	-2.006 (8.786)	0.546*** (0.194)
200–499	0.277 (0.176)	1.958*** (0.236)	-8.782 (8.260)	0.334* (0.201)
500+	0.271 (0.203)	1.790*** (0.248)	-7.857 (9.236)	0.569*** (0.219)
Constant	-0.480 (0.374)	-1.927*** (0.659)	-49.692*** (19.889)	-0.875** (0.396)
R2/Pseudo R2	0.16	0.41	0.16	0.25
F/LR chi2	588.61	1,614.69	4.86	626.05
N	3,071	3,039	1,845	2,879

(a) Robust standard errors are in parenthesis. * implies significant at 10%, ** at 5% and *** at 1% level of significance. (b) See Table 1 for definition and measurement of explanatory variables. (c) In all specifications, we controlled for firm specific characteristics, and industry and city effects as control variables.

Source: Authors' estimates.

Source Authors' estimates.

Figure 7: Regulatory Environment



Source Authors' estimates.

Labour regulations, permits, and licensing laws apply only to firms that employ 100 or more workers and, relative to other firms, firms in this data set that employ fewer than 100 workers perceive these requirements as major growth constraints. There are few mid-size firms in the Indian manufacturing sector and firms are not upwardly mobile. These phenomena may be explained by the necessity for obtaining permits and following licensing laws and labour regulations such as minimum wage legislation, mandatory non-wage benefits, and job security guarantees, argue a few researchers (Mazumdar and Sarkar 2013; Ramaswamy 2013). Possibly, thus, the results in this study support their stance. Relaxing labour regulations, however, may reduce job security for workers under their purview.³

A positive and significant coefficient is observed across all firm size categories for “taxobst,” implying that high taxes and tax administration affect entrepreneurs of all sizes (relative to the residual category) severely; that is, it does not discriminate between firm size. This is expected, as high taxes reduce an entrepreneur’s post-tax income and can lessen entrepreneurial activity and growth for all firms, irrespective of size. Since taxes are a significant cost of doing business, it is not surprising that most firms regard them as being too high (Batra et al 2003).

The institutional constraints that represent the social and physical infrastructure dimension are important for all firm size categories. Firms in all categories stress on the importance of skilled and educated workers, sufficient power supply, and adequate telecommunications for smooth operation and growth, and they report these obstacles as major constraints to their growth as compared to firms in the 1–5 category. The coefficients of all firm size categories are positive and significant for “ednwrk,” “power,” and “telcom”—barring a few exceptions, such as power for larger firms—and that suggests that these constraints affect firm growth and operation significantly irrespective of size. Firms need quality power and a qualified workforce to grow (Raj and Sen 2016). There is no significant difference between firms of any size in their perception of “access to finance” as an obstacle to growth.

Under the dimension of law and order, four variables—crime, security, overdue, and court—are identified: The results show that the coefficient of security is positive and significant for all firm size categories and the coefficients of crime and overdue payments are statistically insignificant (Table 3). That implies that firms in all categories consider payments made towards security, but not crime or overdue payments, a serious constraint to growth. The legal system and conflict resolution represent a major constraint for the operation and growth of

firms that employ 50 or more workers; the coefficient is positive and significant for firms in the 50–99, 100–199, 200–499, and 500+ categories and insignificant for firms in the 5–9 and 10–49 categories. This finding suggests that smaller firms report lower legal obstacles than larger firms.

Enforceable property rights and contracts are universally believed to be important for growth, and a well-functioning, efficient judicial system is expected to have an important bearing on firm growth (Weder 2003). This study finds, however, that smaller firms report lower legal obstacles than larger firms. This finding is in line with the argument that large firms rely much more than small firms on long-term financing and larger loans and are, therefore, more likely than small firms to tax the resources of an underdeveloped financial or legal system (Beck et al 2005). Inefficient financial and legal systems could increase the effects of institutional obstacles on the largest

firms. It is also possible that small firms are unlikely to have much experience with the working of the judiciary and are hence unlikely to report larger problems (Schiffer and Weder 2001).

Does corruption constrain the growth of Indian manufacturing firms? Many studies show that corruption reduces private investment and growth, but few disentangle the varying effects corruption has on firms of different sizes. This study investigates whether the perception of corruption differs between firms of different sizes by using a number of measures that proxy for firms' perception of corruption. Two indicators of corruption are used: perception of corruption, which captures a firm's perception on corruption as a constraint for the operation and growth of its business; and, more directly, graft incidence,⁴ which measures whether the firm was requested to pay a bribe for obtaining permits and licences (such as a telephone, electricity, or water connection; construction-related permit; import or operating licence; or in a meeting with government officials).

Regression estimations are performed on firm size categories for eight such variables while controlling for the influence of firm-specific characteristics (Table 4). The results indicate that firms perceive corruption as a deterrent for their business operation and growth, as is evident from the positive and significant coefficient of all size categories but 500+ for corruption. This implies that the effect of corruption is evident for small and medium firms but not for large firms, and it possibly lends support to the De Soto view: small firms report larger problems with bureaucratic corruption than do large firms. By contrast, the variables representing the incidence of graft are not found to be significant growth deterrents for any firm size category and, barring a very few exceptions, the coefficients of size categories are insignificant for all proxies of graft incidence. This suggests that though firms of all size categories are exposed to corruption, it affects small and mid-size firms the most.

The existing studies consider that the regulatory environment is important to firm growth and suggest that existing regulations constrain the operation and growth of manufacturing firms. To capture the regulatory environment faced by firms, this study uses proxies that

Table 4: Firm Size and Institutional Constraints: Regressions for Corruption

Variables	Corruption									
	Corrupt	Contract	Telgift	Elegcift	Watergift	Conpmtgift	Oplicgift	Paygovtoff	Paymunoff	Paypolice
6–9	0.325*** (0.075)	0.088 (0.124)	0.173 (0.441)	-0.207 (0.342)	-0.100 (0.499)	0.632 (0.459)	0.395 (0.260)	0.091 (0.111)	0.186 (0.147)	-0.156 (0.215)
10–49	0.355*** (0.077)	0.213* (0.120)	0.431 (0.418)	0.206 (0.331)	-0.066 (0.457)	0.850* (0.444)	0.468* (0.260)	0.167 (0.110)	0.127 (0.149)	-0.248 (0.216)
50–99	0.564*** (0.137)	0.244 (0.164)	0.568 (0.474)	0.018 (0.410)	-0.204 (0.558)	0.351 (0.544)	-0.313 (0.420)	0.318*** (0.163)	-0.120 (0.231)	-0.364 (0.277)
100–199	0.585*** (0.167)	0.412** (0.193)	1.132*** (0.535)	0.523 (0.514)	0.011 (0.609)	0.968 (0.705)	0.382 (0.564)	0.250 (0.192)	0.039 (0.250)	-0.476 (0.306)
200–499	0.328** (0.168)	0.163 (0.198)	0.645 (0.563)	0.338 (0.519)	0.004 (0.945)	-0.158 (0.735)	0.220 (0.646)	0.129 (0.196)	-0.215 (0.256)	-0.425 (0.313)
500+	0.225 (0.191)	0.358 (0.224)	-0.337 (0.652)	-0.488 (0.594)	–	-0.812 (0.782)	-0.782 (0.838)	0.136 (0.230)	-0.171 (0.280)	-0.113 (0.389)
Constant	-0.344 (0.360)	-1.701** (0.751)	-0.961 (0.943)	-0.128 (0.885)	-1.663* (0.982)	0.348 (0.999)	0.004 (0.671)	-1.158*** (0.469)	-0.255 (0.722)	0.828* (0.488)
R2/Pseudo R2	0.17	0.24	0.30	0.22	0.18	0.32	0.25	0.15	0.15	0.11
F/LR chi2	719.14	604.85	154.75	130.90	58.26	105.38	132.11	387.31	232.93	108.73
N	3080	2497	412	435	235	277	387	1867	1098	741

(a) Robust standard errors are in parenthesis. * implies significant at 10%, ** at 5% and *** at 1% level of significance. (b) See Table 1 for definition and measurement of explanatory variables. (c) In all specifications, we controlled for firm specific characteristics, and industry and city effects as control variables.

Source: Authors' estimates.

Table 5: Firm Size and Institutional Constraints: Regressions for Regulatory Environment

Variables	Regulatory Environment									
	Nvisitgovt	Nvisitmun	Nvisitpolice	Ntotvisit	Perftmregu	Waittel	Waitelec	Waitwater	Waitconpmt	Waitopic
6–9	-0.035 (0.603)	-0.005 (0.205)	0.019 (0.397)	-0.008 (0.652)	1.355*** (0.494)	9.075** (4.239)	-5.252 (7.694)	-11.325 (63.840)	8.630 (11.779)	-8.628 (10.224)
10–49	0.412 (0.585)	-0.248 (0.199)	-0.819** (0.381)	0.218 (0.644)	3.029*** (0.504)	12.236*** (3.970)	-12.990* (7.220)	-13.547 (59.152)	12.810 (10.986)	-4.209 (9.417)
50–99	1.703** (0.819)	0.047 (0.265)	-0.631 (0.459)	2.455*** (0.972)	3.285*** (0.860)	14.292*** (4.530)	-6.980 (8.727)	23.896 (70.439)	9.921 (13.083)	-4.102 (13.414)
100–199	1.536 (0.998)	0.406 (0.312)	-0.795 (0.530)	1.950* (1.186)	4.913*** (1.092)	13.932*** (5.136)	-6.459 (10.443)	94.334 (78.604)	12.813 (15.744)	5.507 (17.706)
200–499	5.993*** (0.996)	0.893*** (0.319)	-0.417 (0.535)	8.170*** (1.233)	1.991* (1.098)	13.541*** (5.212)	-11.086 (10.308)	19.317 (86.874)	-3.749 (16.916)	-13.571 (17.784)
500+	4.348*** (1.141)	1.950*** (0.356)	0.204 (0.586)	6.784*** (1.389)	4.373*** (1.265)	18.635*** (5.306)	-13.355 (11.318)	4.513 (90.396)	15.650 (16.593)	14.433 (19.114)
Constant	6.898* (3.824)	5.886*** (1.144)	10.086*** (1.943)	18.434*** (4.376)	16.456*** (4.561)	-3.478 (11.055)	39.012* (21.266)	1.517 (208.42)	19.321 (29.625)	54.548* (32.375)
R2/Pseudo R2	0.16	0.18	0.15	0.20	0.38	0.42	0.27	0.22	0.25	0.19
F/LR chi2	5.69	5.54	3.62	6.97	25.47	5.23	2.45	1.22	1.47	1.32
N	2167	1876	1557	2058	3102	572	530	363	358	456

(a) Robust standard errors are in parenthesis. * implies significant at 10%, ** at 5% and *** at 1% level of significance. (b) See Table 1 for definition and measurement of explanatory variables. (c) In all specifications, we controlled for firm specific characteristics, and industry and city effects as control variables.

Source: Authors' estimates.

intend to capture the treatment—favourable or unfavourable—meted out by regulatory agencies in terms of the time firms wait to obtain permits and services and the number of inspections by officials. The results show that a few obstacles are critical for firms in larger firm size categories, some affect firms across the board, and for other obstacles the effect does not differ by firm size (Table 5).

Compared to small and mid-size firms, large firms report being more constrained by inspections by government officials, as is evident from the difference in the magnitude of the coefficients of “nvisitgovt” and “nvisitmun” between larger firms and smaller firms. This is also true of inspections overall (“ntotvisit”); large firms reported to be experiencing more visits than small firms. On the time spent dealing with regulations (“pertimregu”), small and large firms are equally constrained, as all firms, irrespective of size, treat this as a serious issue. The time firms wait to obtain various public services does not differ by firm size; however, the time taken to obtain a telephone connection is found to be significant for all firms, irrespective of size.

These findings imply that large firms are more exposed to inspections by officials as these firms are more likely than small firms to enjoy higher profits, more visible, and more susceptible to blackmail and more prone to offer kickbacks. These findings also imply that certain aspects of the regulatory environment affect all firms alike.⁵

Conclusions

This article attempted to understand the conundrum of the missing middle in the Indian manufacturing sector. Self-reported firm-level data on objective and subjective measures of institutional quality, and on other potential barriers to the

entry of mid-size firms, are used. These data are taken from two surveys of firms, one for the formal sector and the other for the informal sector, and these are combined into a pooled data set of firms across all size categories. Some of the observations from the analysis of the data provide empirical confirmation for some commonly held truths, while some provide little evidence for others.

In facing impediments to doing business, mid-size firms recognise themselves as being more constrained than small and large firms. The perception of some general constraints is not statistically different for mid-size firms from small or large firms, and labour regulations, permits, and licensing laws are significantly more likely to constrain mid-size firms severely. Many observers of India's growth story emphasise that laws and regulations explain the missing middle, which affects overall growth and productivity. Corruption, weak infrastructure, and poor law and order constrain firms of all sizes equally. Large firms show a statistically higher degree of constraint than small firms on most constraints related to the regulatory environment.

Overall, the results show that the missing middle problem is an institutional problem, and that it has little to do with infrastructure and finance constraints. The most important set of institutions are the ones that could be termed “predatory” institutions—the corruption that mid-sized firms face in their day-to-day interactions with the state. The current policy approach to the manufacturing sector is to improve the ease of doing business by reforming regulatory institutions, but our findings suggest that such reforms in themselves are not enough to solve the missing middle problem. More attention needs to be given to discipline lower-level bureaucrats who engage in petty corruption and to make government procedures more transparent and accountable so that there is less scope for corruption.

NOTES

- 1 There is a rich literature on how institutions affect firm performance in the global context (Yasar et al 2011; Commander and Svejnar 2011).
- 2 The Investment Climate Surveys have been replaced by the Enterprise Surveys, which are conducted at present by the Enterprise Analysis Unit of the World Bank.
- 3 Contract workers are outside the purview of the strict labour regulations that apply to workers in permanent contracts, and formal sector firms increasingly use contract labour (NCEUS 2009). The possible under-reporting of workers by firms in surveys, partly to avoid taxes and regulations, may explain the missing middle (Chatterjee and Kanbur 2015; Streefkerk 2001; Nagaraj 1999).
- 4 The exceptions are the significant coefficients of “contract,” “conpmtgift,” and “oplicgift” for firms in the 10–49 category; “paygovtoff” in the 50–99 category; and “contract” and “telgift” in the 100–199 category.
- 5 An anonymous referee suggested that all the empirical analyses be replicated by using only the sample of formal firms and 500+ firms as the benchmark category. The findings in this study—large firms are more visible and, therefore, more exposed to inspections, and certain aspects of the regulatory environment affect all firms uniformly—are upheld. These results are available from the authors upon request.

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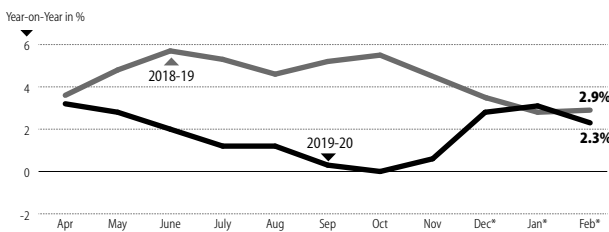
Wholesale Price Index

The year-on-year (y-o-y) wpi inflation rate decreased to 2.3% in February 2020 from 2.9% reported a year ago and 3.1% a month ago. The index for primary articles increased by 6.7% compared to 4.8% registered a year ago but was lower than 10.0% a month ago. The index for food articles rose by 7.8% compared to 4.2% recorded a year ago but, was lower than 11.5% reported a month ago. The index for fuel and power increased by 3.4% compared to 1.7% recorded a year ago. The index for manufactured products decreased by 0.4% compared to 2.3% reported a year ago.

Consumer Price Index

The cpi-inflation rate increased to 5.9% in March 2020 from 2.9% registered a year ago, but was lower than 6.6% reported in February 2020. The consumer food price index rose by 8.8% against 0.3% reported a year ago, but was lower than 10.8% a month ago. The cpi-rural inflation rate stood higher at 6.1% and the urban inflation rate at 5.7% compared to 1.8% and 4.1%, respectively, recorded a year ago. As per Labour Bureau data, the cpi-inflation rate of agricultural labourers (CPI-AL) increased to 10.1% in February 2020 from 3.1% registered a year ago while that of industrial workers (CPI-IW) decreased to 6.8% from 7.0%.

Movement of WPI Inflation April-February



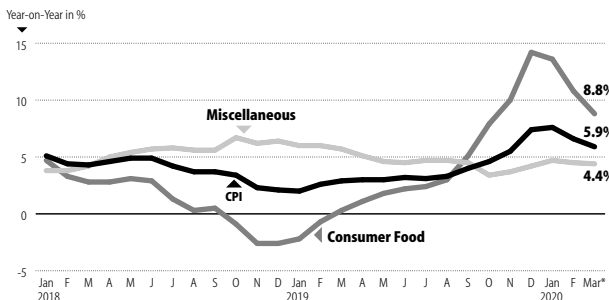
* Data is provisional; Base: 2011-12 = 100.

Trends in WPI and Its Components February 2020* (%)

	Weights	Over Month	Over Year	Financial Year (Averages)		
				2016-17	2017-18	2018-19
All commodities	100	-0.57	2.26	1.73	2.92	4.28
Primary articles	22.6	-2.79	6.71	3.42	1.38	2.74
Food articles	15.3	-3.67	7.79	4.03	2.05	0.32
Fuel and power	13.2	1.17	3.38	-0.26	8.16	11.50
Manufactured products	64.2	0.17	0.42	1.34	2.75	3.66

* Data is provisional; Base: 2011-12=100; Source: Ministry of Commerce and Industry.

Movement of CPI Inflation January 2018-March 2020



* Data is provisional. Source: National Statistical Office (NSO), Ministry of Statistics and Programme Implementation, Base: 2012=100.

CPI: Rural and Urban March 2020* (%)

	Latest Month Index	Over Month	Over Year	Financial Year (Avg)	
				2018-19	2019-20
CPI Combined	148.7	-0.3	5.9	3.4	4.3
Rural (2012=100)	149.8	-0.4	6.1	3.0	5.4
Urban (2012=100)	147.4	-0.2	5.7	3.9	4.8

CPI: Occupation-wise#

	Latest Month Index	Over Month	Over Year	Financial Year (Avg)	
				2018-19	2019-20
Industrial workers (2001=100)	328.0	-0.6	6.8	3.1	5.4
Agricultural labourers (1986-87=100)	1010.0	-0.6	10.1	2.2	2.1

* Provisional; # February 2020; Source: NSO (rural & urban); Labour Bureau (IW and AL).

Foreign Trade

The trade deficit widened to \$9.9 bn in February 2020 from \$9.7 bn reported a year ago. Exports increased by 2.9% to \$27.7 bn and imports by 2.5% to \$37.5 bn from \$26.9 bn and \$36.6 bn, respectively, reported a year ago. Oil imports were higher by 14.3% at \$10.8 bn while non-oil imports were lower by 1.6% at \$26.7 bn from \$9.4 bn and \$27.2 bn, respectively. During April-February 2019-20, cumulative exports declined by (-)1.5% to \$292.9 bn and imports by (-)7.3% to \$436.0 bn from their respective values of \$297.4 bn and \$470.4 bn reported during the corresponding period of last year.

Index of Industrial Production

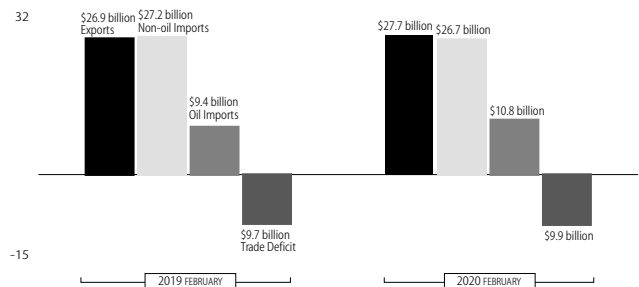
The year on year (y-o-y) growth rate of IIP increased to 4.5% in February 2020 from 0.2% registered a year ago with growth in manufacturing sector increasing to 3.2% from -0.3%. Production in mining sector rose by 10.0% and electricity generation by 8.1% compared to 2.2% and 1.3%, respectively, a year ago. As per use-based classification, capital goods production declined to -9.7%, consumer durables to -6.4% and infrastructure goods to 0.1% against their respective growth rate of -9.3%, 0.9% and 1.9%. Production of consumer non-durables remained unchanged at 1.9%.

Merchandise Trade February 2020

	February 2020 (\$ bn)	Over Month (%)	Over Year (%)	April-February (2019-20 over 2018-19) (%)
Exports	27.7	6.5	2.9	-1.5
Imports	37.5	-8.8	2.5	-7.3
Trade Deficit	9.9	-35.1	1.3	-17.3

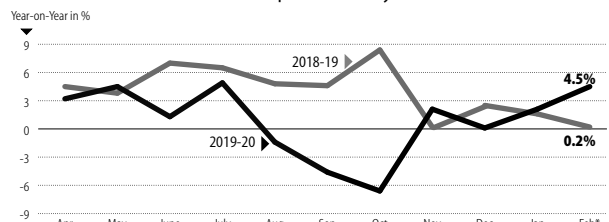
Data is provisional. Source: Ministry of Commerce and Industry.

Components of Trade February 2019 and February 2020



Oil refers to crude petroleum and petroleum products, while non-oil refers to all other commodities.

Movement of IIP Growth April-February



* February 2020 are quick estimates; Base: 2011-12=100.

Industrial Growth: Sector-wise February 2020* (%)

	Weights	Over Month	Over Year	Financial Year (Avg)	
				2017-18	2018-19
General index	100	-2.8	4.5	2.3	2.9
Mining	14.4	-0.4	10.0	4.6	3.9
Manufacturing	77.6	-3.1	3.2	5.4	5.2
Electricity	8.0	-4.2	8.1	4.4	3.8

Industrial Growth: Use-based

	Weights	Over Month	Over Year	Financial Year (Avg)	
				2017-18	2018-19
Primary goods	34.0	-2.4	7.4	3.7	3.5
Capital goods	8.2	-5.1	-9.7	4.0	2.7
Intermediate goods	17.2	-1.4	22.4	2.3	0.9
Infrastructure/Construction goods	12.3	-1.8	0.1	5.6	7.3
Consumer durables	12.8	-5.4	-6.4	0.8	5.5
Consumer non-durables	15.3	-3.0	0.0	10.6	4.0

* February 2020 are quick estimates; Base: 2011-12=100; Source: NSO, Ministry of Statistics and Programme Implementation.

Comprehensive current economic statistics with regular weekly updates are available at: <http://www.epwrf.in/currentstat.aspx>.

ECONOMIC & POLITICAL WEEKLY

India's Quarterly Estimates of Final Expenditures on GDP

	2017-18				2018-19				2019-20		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Private final consumption expenditure	1769688 (9.3)	1750056 (5.5)	1911901 (5.3)	1948174 (7.7)	1889008 (6.7)	1903853 (8.8)	2046415 (7.0)	2068781 (6.2)	1983491 (5.0)	2010993 (5.6)	2166235 (5.9)
Government final consumption expenditure	362769 (21.6)	367882 (7.4)	319547 (10.5)	293024 (8.9)	393709 (8.5)	407780 (10.8)	341988 (7.0)	335088 (14.4)	428390 (8.8)	461585 (13.2)	382338 (11.8)
Gross fixed capital formation	958859 (0.7)	967190 (5.9)	1014300 (8.8)	1120846 (13.7)	1082670 (12.9)	1077942 (11.5)	1130201 (11.4)	1170154 (4.4)	1129470 (4.3)	1033344 (-4.1)	1071887 (-5.2)
Change in stocks	49996 (61.7)	54050 (75.8)	52497 (78.3)	59252 (79.6)	64131 (28.3)	66159 (22.4)	63999 (21.9)	70126 (18.4)	66411 (3.6)	66732 (0.9)	64668 (1.0)
Valueables	62905 (80.1)	46317 (25.0)	39512 (11.2)	43927 (1.5)	41080 (-34.7)	44629 (-3.6)	39252 (-0.7)	44773 (1.9)	49519 (20.5)	49919 (11.9)	41824 (6.6)
Net trade (Export-import)	-137041	-85422	-128661	-125231	-122238	-141491	-104580	-51925	-117247	-76415	-50489
Exports	627176 (3.9)	639543 (4.5)	646620 (4.4)	688438 (5.0)	686695 (9.5)	719352 (12.5)	748505 (15.8)	767991 (11.6)	708771 (3.2)	703973 (-2.1)	707407 (-5.5)
Less imports	764217 (21.8)	724965 (10.5)	775281 (14.1)	813669 (23.6)	808933 (5.9)	860843 (18.7)	853085 (10.0)	819916 (0.8)	826018 (2.1)	780388 (-9.3)	757896 (-11.2)
Discrepancies	69397	132000	105705	151721	10803	73679	-17242	52683	7482	61000	-11460
Gross domestic product (GDP)	3136572 (5.1)	3232072 (7.3)	3314801 (8.7)	3491715 (7.4)	3359162 (7.1)	3432553 (6.2)	3500033 (5.6)	3689678 (5.7)	3547516 (5.6)	3607157 (5.1)	3665003 (4.7)

India's Overall Balance of Payments (Net): Quarterly

	2018-19 (\$ mn)				2019-20 (\$ mn)			2018-19 (₹ bn)			2019-20 (₹ bn)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3	
Current account	-15803	-19054	-17752	-4647	-14417	-6512	-1417	-1059 [-2.3]	-1337 [-2.9]	-1279 [-2.7]	-328 [-0.7]	-1003 [-2.0]	-459 [-0.9]	-101 [-0.2]
Merchandise	-45751	-50037	-49281	-35214	-46182	-38085	-34625	-3065	-3510	-3552	-2482	-3212	-2682	-2466
Invisibles	29947	30984	31529	30567	31765	31573	33208	2006	2174	2272	2154	2209	2224	2365
Services	18676	20256	21678	21331	20076	20444	21880	1251	1421	1562	1503	1396	1440	1558
of which: Software services	18605	19286	19895	19868	20998	21064	21455	1246	1353	1434	1400	1460	1484	1528
Transfers	17031	19331	17424	16160	17964	19952	18693	1141	1356	1256	1139	1249	1405	1331
of which: Private	17216	19511	17558	16317	18224	20188	18932	1153	1369	1265	1150	1267	1422	1349
Income	-5760	-8603	-7573	-6925	-6275	-8822	-7364	-386	-604	-546	-488	-436	-621	-525
Capital account	4787	16604	13770	19241	28208	12283	22355	321 [0.7]	1165 [2.5]	992 [1.2]	1356 [2.7]	1962 [4.0]	865 [1.7]	1592 [3.1]
of which: Foreign investment	1427	7612	5199	15856	19041	10389	17802	96	534	375	1117	1324	732	1268
Overall balance	-11338	-1868	-4296	14162	13984	5118	21601	-760 [-1.7]	-131 [-0.3]	-310 [-0.6]	998 [2.0]	973 [2.0]	360 [0.7]	1539 [3.0]

Figures in square brackets are percentage to GDP.

Foreign Exchange Reserves

	2018-19 (\$ mn)			2019-20 (\$ mn)		2018-19 (₹ bn)		Variation		Financial Year		
	3 April 2020	5 April 2019	31 March 2020	Over Month	Over Year	2019-20	2020-21	2015-16	2016-17	2017-18	2018-19	2019-20
Excluding gold but including revaluation effects	3347872	2681860	3344616	10934	666012	6220	3256	218620	25300	353270	68050	668976
₹ crore	440543	387572	443645	-12039	52972	758	-3102	16297	10160	53217	-14168	56831

Monetary Aggregates

	Outstanding 2020	Over Month	Over Year	Variation				
				Financial Year So Far		Financial Year		
₹ crore				2018-19	2019-20	2016-17	2017-18	2018-19
Money supply (M ₂) as on 27 March	16795276	330468 (2.0)	1351682 (8.8)	1481007 (10.6)	1363209 (8.8)	1174310 (10.1)	1170657 (9.2)	1469480 (10.5)
Components								
Currency with public	2341851	86080 (3.8)	286806 (14.0)	295332 (16.8)	289641 (14.1)	-333130 (-20.9)	495583 (39.2)	292497 (16.6)
Demand deposits	1737659	153245 (9.7)	111147 (6.8)	142800 (9.6)	111147 (6.8)	406920 (41.1)	86962 (6.2)	142800 (9.6)
Time deposits	12677590	87524 (0.7)	955986 (8.2)	1026348 (9.6)	955986 (8.2)	1094920 (12.1)	585266 (5.8)	1026348 (9.6)
Other deposits with RBI	38177	3619 (10.5)	-2257 (-5.6)	16527 (69.1)	6435 (20.3)	5640 (36.5)	2817 (13.4)	7835 (32.8)
Sources								
Net bank credit to government	5008351	24464 (0.5)	576070 (13.0)	430882 (10.8)	619861 (14.1)	618120 (19.1)	144799 (3.8)	387091 (9.7)
Bank credit to commercial sector	11038144	278685 (2.6)	655411 (6.3)	1169018 (12.7)	655425 (6.3)	608420 (7.8)	802225 (9.5)	1169004 (12.7)
Net foreign exchange assets	3754433	63267 (1.7)	685544 (22.3)	146594 (5.0)	683593 (22.3)	24510 (1.0)	364065 (14.2)	148545 (5.1)
Banking sector's net non-monetary liabilities	3031966	35983 (1.2)	565815 (22.9)	265676 (12.1)	596096 (24.5)	79910 (4.0)	140995 (6.8)	235395 (10.7)
Reserve money as on 3 April	2972911	-50037 (-1.7)	252439 (9.3)	-50010 (-1.8)	-56763 (-1.9)	518300 (27.3)	351702 (14.5)	259192 (9.4)
Components								
Currency in circulation	2457025	82897 (3.5)	308795 (14.4)	11459 (0.5)	9746 (0.4)	494078 (37.0)	307423 (16.8)	310508 (14.5)
Bankers' deposits with RBI	477843	-134210 (-21.9)	-65875 (-12.1)	-58251 (-9.7)	-66045 (-12.1)	21405 (3.9)	36444 (6.4)	-58081 (-9.6)
Other deposits with RBI	38043	1276 (3.5)	9519 (33.4)	-3218 (-10.1)	-464 (-1.2)	2817 (13.4)	7835 (32.8)	6765 (21.3)
Sources								
Net RBI credit to Government	1088018	50607 (4.9)	217754 (25.0)	68313 (8.5)	95826 (9.7)	-144836 (-23.3)	325987 (68.5)	190241 (23.7)
of which: Centre	1085232	55018 (5.3)	222308 (25.8)	62451 (7.8)	95491 (9.6)	-145304 (-23.5)	326187 (68.8)	189268 (23.6)
RBI credit to banks & commercial sector	-344726	-60245 (21.2)	-375567 (-1217.8)	-122010 (-79.8)	-143833 (71.6)	372643 (-120.5)	89478 (0.0)	-353744 (0.0)
Net foreign exchange assets of RBI	3602983	15769 (0.4)	748503 (26.2)	5893 (0.2)	12581 (0.4)	363571 (15.2)	87806 (3.2)	741815 (26.0)
Govt's currency liabilities to the public	26315	35 (0.1)	427 (1.5)	0 (0.0)	0 (0.0)	572 (2.3)	236 (0.9)	427 (1.6)
Net non-monetary liabilities of RBI	1399679	56203 (4.2)	338678 (31.9)	2206 (0.2)	21337 (1.5)	73650 (8.8)	151805 (16.7)	319547 (30.2)

Scheduled Commercial Banks' Indicators (₹ crore)

(As on 27 March)	Outstanding 2020	Over Month	Over Year	Variation				
				Financial Year So Far		Financial Year		
				2018-19	2019-20	2016-17	2017-18	2018-19
Aggregate deposits	13571033	239328 (1.8)	997261 (7.9)	1147722 (10.0)	997261 (7.9)	1430370 (15.3)	668390 (6.2)	1147722 (10.0)
Demand	1616970	151500 (10.3)	105682 (7.0)	141005 (10.3)	105682 (7.0)	392440 (44.1)	88843 (6.9)	141005 (10.3)
Time	11954063	87828 (0.7)	891579 (8.1)	1006717 (10.0)	891579 (8.1)	1037920 (12.3)	579547 (6.1)	1006717 (10.0)
Cash in hand	87154	5172 (6.3)	12277 (16.4)	14812 (24.7)	12277 (16.4)	3920 (6.8)	-1295 (-2.1)	14812 (24.7)
Balance with RBI	505131	-44902 (-8.2)	-60576 (-10.7)	40021 (7.6)	-60576 (-10.7)	121330 (31.3)	16906 (3.3)	40021 (7.6)
Investments	3693396	-84774 (-2.2)	312340 (9.2)	62602 (1.9)	312340 (9.2)	405440 (15.4)	287494 (9.5)	62602 (1.9)
of which: Government securities	3684743	-84299 (-2.2)	305741 (9.0)	61595 (1.9)	305741 (9.0)	405820 (15.5)	287657 (9.5)	61595 (1.9)
Bank credit	10371913	266933 (2.6)	600190 (6.1)	1146298 (13.3)	600190 (6.1)	591840 (8.2)	783965 (10.0)	1146298 (13.3)
of which: Non-food credit	10320150	280766 (2.8)	590037 (6.1)	1146677 (13.4)	590037 (6.1)	643170 (9.0)	795906 (10.2)	1146677 (13.4)

Capital Markets

	9 April 2020	Month Ago	Year Ago	Financial Year So Far		2019-20		End of Financial Year			
				Trough	Peak	Trough	Peak	2017-18	2018-19	2019-20	
S&P BSE SENSEX (Base: 1978-79=100)	31160	(-20.0)	35635	38939 (15.2)	27591	31160	25981	41953	32969 (12.1)	39714.20 (12.4)	29816 (-21.8)
S&P BSE-100 (Base: 1983-84=100)	9221	(-22.2)	10550	11851 (9.8)	8180	9221	7683	12456	10503 (11.5)	12044.07 (9.1)	8693 (-25.2)
S&P BSE-200 (1989-90=100)	3840	(-22.0)	4411	4922 (7.7)	3416	3840	3209	5185	4433 (12.0)	4986.55 (7.1)	3614 (-25.1)
CNX Nifty-50 (Base: 3 Nov 1995=1000)	9112	(-21.9)	10451	11672 (12.5)	8084	9112	7610	12362	10114 (11.0)	11922.80 (11.1)	8660 (-24.3)
CNX Nifty-500	7442	(-23.1)	8631	9678 (5.1)	6638	7442	6243	10119	8912 (12.6)	9805.05 (5.3)	7003 (-26.3)

Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. (-) = not relevant | - = not available | NS = new series | PE = provisional estimates

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What's Urban Transport Planning Got to Do with Train Vendors?

Studying the labour-lives of women vendors on Mumbai's local trains can have far-reaching consequences for urban transport planning.

ADITI AGGARWAL

A couple of years ago I found myself going to Dadar station in Mumbai at 8 am every morning waiting for a research informant to alight from the middle ladies' compartment of the local train. While I never managed to meet her, I ended up discovering and introducing myself to a train vendor known to many as Savita *maushi*, who is an institution unto herself. She is a 60-something, short, and dynamic Gujarati woman selling kurtas, scarves, and sarees to hundreds of women setting off to work on the train in the morning rush hour. She led me into a world of everyday fashion, fast-sales, and family business networks that stretches across different train routes and into markets surrounding the local train network in Mumbai. There began my feminist anthropological investigations of the lifeworld of businesses run by women on the 70-odd km suburban train routes running along the western coastline of Mumbai.

In my ongoing work, I have spent time shadowing women selling scarves, kurtas, artificial gold jewellery, hair accessories, and freshly cooked breakfast. Unlike many classic cultural anthropologists, those of the lore of Bronislaw Manilowski and M N Srinivas, I have chosen not to live in the same neighbourhoods or communities as my research participants. I spend my time in spaces where women work, trade, and set up businesses, rather than their households.

This is different from a lot of current research on women that tends to study their private, intimate, and domestic lives. There are library shelves full of reports and monographs on sex work and domestic work. Similarly, vast amounts of international funding find their way into programmes for empowering rural women by helping them set up collective businesses, and cooperative funds, all within the confines of their homes and neighbourhoods. There is merit in moving away from this constant, reductionist focus on women's private lives to look instead at how urban women learn to operate and set up trade networks, sustain businesses and customer bases, and create entire markets in the crowded, rapidly moving, and constantly changing public of Mumbai.

Women vendors enjoy a unique place of favour among the daily users of the local trains. Each morning as I board the trains with different vendors, I hear shouts of joy from women

who have been waiting for them to arrive. Cries of "Come here first Lavinga," "You came so late today, now I have to get off at the next stop, how will I buy from you?" and "Good morning, Madam," echo across the compartment and through the crowds. As we push through the crowd to reach these voices, I hear Savita maushi or her sister Lavinga start up their signature calls: "Kurta, top, leggings se (I have Kurtas, tops, leggings)," "Chalo palazzo se, formals se. Set?" Simultaneously they begin to pull out the latest designs in kurtas, and clothes are passed on to eager hands, turning the compartment into a riot of colours. Women ask for different sizes, colours, lament the lack of choice, and then the bargaining begins.

The air of camaraderie that flows around us is unique to certain vendors and not others. Those who maintain regular routes and only sell on certain trains tend to meet the same commuters daily, building strong customer relationships that ensure continuous sales over time.

Savita maushi prides herself on her ability to acutely gauge not just each customer's size or their tendency to bargain, but also to remember faces, and therefore being able to sustain long-term relationships of trust over 25 years. This trust shows itself when she lends clothes to women to try on at

home before they pay her, when very old and trusted customers offer small loans to her, and when her "customer families" help her access healthcare and legal resources in emergencies. In her words, "I command respect and love because I have a uniquely pleasing *bol bacchan* [the ability to make fun and intimate conversation with customers irrespective of whether they make purchases]." She continues, "This marks the difference between long-lasting and successful vendors on the trains versus those who fail to make it in the train economy." The *dhandhewali* (vendor woman) is then more than just idle distraction on the train, often making the pressures of urban life bearable and pleasurable, by integrating herself into the social lifeworld of daily women commuters.

The train market is an institution that has existed in commuter memory for several decades. Despite the lack of documentary evidence, it is reasonable to assume that train markets have existed for nearly as long as the local trains in Mumbai. As these market lives continue, the rest of the city is abuzz with the noise of big cranes drilling tunnels under roads for the new underground metro rail system. This

In this heady haze of waiting for the future, there is little concern for how the much-loved, but regularly criminalised vendor women feature in the sanitised spaces of the metro rail line

state-of-the-art, air-conditioned public transport network is set to become the primary mode of commuting in the city in the next decade. Currently, Mumbaikars hate the pollution and the traffic snarls caused by its construction, but wait with bated breath to have this futuristic mode of transport at their disposal. In this heady haze of waiting for the future, there is little concern for how the much-loved, but regularly criminalised vendor women feature in the sanitised spaces of the metro rail line. Will the hundreds of women who have gained financial stability and economic mobility through their entrepreneurial efforts in the local trains be able to stake a claim in the projected poverty alleviation and economic growth resulting from these public transport investments?

Feminist anthropology as a research framework attempts to bring together these seemingly unrelated processes to create labour histories for train vendors where there exists very little documentary evidence. The collecting of oral histories and documents of trade stored by vending families can shine a light on the long-established, economically adaptive, and socially embedded markets created by this group of entrepreneurial urban women in India. Such a labour archive can highlight the myopic view of economic growth and poverty alleviation taken by urban planning, which has critical consequences for the lives of women integral to Mumbai's economic circulation. Their historical presence and contribution to the economy can then be used to make crucial inroads into conversations and deliberations around urban transport planning that occur in offices of city development and railway authorities.

[Images accompanying this article are available on the *EPW* website.]

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Maybe Modiji Doesn't Know About Us

K SRILATA

I

In Lakhmipur Kheri, a Dalit man who had returned from Gurugram is found hanging in the fields. The police had beaten him up. Crime: jumping quarantine. *The matter is under probe.*

II

"Maybe when Modiji decided to do this, nobody told him about us. Maybe he doesn't know about us," carpenter Ramjeet said.

III

"And what for anyway – getting on those crowded buses will expose us to the risk of contracting the infection," said Manju Kumari, house help, Greater Noida's Omega-I.

IV

"Corona se pehle bhookh maar degi, Hunger will kill us before the coronavirus," Bhole said. "Hawai jahazon se bimari ayi hai. Hum to laye nahi. Par sadak pe bhookhe hum ghoom rahe hain. The disease has come via aeroplanes. We have not brought it. But it is we who are roaming the roads hungry," Bhole said.

[These are found poems. The words aren't mine—just the collage/the putting together. The lines/phrases in Sections I and III are drawn from "The Long March to Uncertainty" by Ajeet Mahale, Jatin Anand, and Omar Rashid (4 April 2020, *Hindu*), Section II is from Arundhati Roy's "The Pandemic Is a Portal" (3 April 2020, *Financial Times*), and Section IV from Kabir Agarwal's "Hunger Can Kill Us Before the Virus: Migrant Workers on the March during Lockdown" (27 March 2020, *Wire*).]

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A Rendezvous with Art and Silence

Art, bolstered by the silence afforded by galleries, ushers us not just into a cosmos created by the artist, but also into our own selves, dropping all pretence.

SUYASH SAXENA

During a recent visit to the National Gallery of Modern Art (NGMA) in Delhi, my attention was drawn towards a rather inconspicuous figure: the keeper of the gallery. An elderly person keeping an eye on the visitors from a corner of the gallery, he spends hours amidst these artworks in silence and passive observation.

Along with me, there was a young art student of Delhi University silently observing these paintings that have trickled down through decades of India's modern art history. In a feeble tone, the keeper asked her where she was from. It was a reluctant question; maybe he only half-expected a response. But she replied enthusiastically, seeming quite keen to take the conversation forward, and in turn asked him how long he had been at NGMA. Perhaps, being used to remaining unnoticed, he confirmed twice whether the question was actually addressed to him. Their conversation took off from there, meandering from one thing to another for a good five to ten minutes, sending ripples of whispers through the stillness that is characteristic of museums and art galleries.

I have always found the silence of art galleries like NGMA to be mesmerisingly meditative. Art and silence are a strange and enigmatic mixture. This mixture is often a means to seek deliverance from the pretentious world outside and all the cosmetic smiles that we so frequently bear to conceal our

innermost angst, pangs, insecurities, inadequacies, and even silent melancholies. This consoling silence of galleries, and the healing presence of works of art, allows us a moment's comfort to drop those cosmetic smiles, and for that moment encounter and embrace our innermost selves. And, so often, such an encounter, afforded to us by art and silence, can be overwhelmingly cathartic.

I spent some 20 minutes in silence before an abstract painting by V S Gaitonde. Each brushstroke of the master was independently visible on the canvas as building blocks of an altogether different cosmos, imaginatively constructed by the artist. And, I felt as if art and silence were warmly paving my way into that cosmos.

As one is ushered into that cosmos crafted by an artist, inch by inch of the canvas, for that moment, our innermost nascent self is drawn into its embrace, leaving behind all our cosmetic identities that may have piled on over a lifespan of social conditioning. Regional, familial, social, cultural, and sexual—all identities stand in momentary suspension. All these cosmetic identities are, in some ways, constraining because they tend to situate us into particular contexts.

Art, by its very nature, is sceptical of all identities, and cannot be contained within any set of identities. It is too abstract, too free, too elevated to be constrained. As noted

There is so much depth and meaning in the mere presence of this desolate figure [the keeper] in the art gallery, that he himself stands as a metaphor for art

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by Virginia Woolf, albeit in a different context, there is a sense of aloofness that always accompanies works of art. A rendezvous with a work of art along with its characteristic sense of aloofness, momentarily carries the beholder beyond the grasp of their cosmetic identities. A brief ontological gap that builds up between us and our social identities delivers us an elusive moment of “existence-sans-identity” or, more dramatically, a moment of anonymity.

Aloofness, anonymity, and respite from constraining identities—these are rare comforts in our modern commodified lives afforded to us by art and silence, and our own privilege.

I do not know this keeper of NGMA, sitting in one corner, a desolate figure. I gaze at him only from a distance—well, an epistemological, objective distance. And, as I gaze at him, I realise that one notices a sense of aloofness in him that is characteristic of a work of art. He is a distant figure completely unknown to me. I do not know the stories that lie concealed behind his silences. I know nothing of his life, of the years he has spent amidst these works of art. He would have known so much about the lives of these masterly paintings while they hung there in silence, as they changed hands, their oil paints cracking with time. He would have known so much about the art lovers who have strolled through the gallery over the years, silently observing them in their most pensive and cathartic moments as they would have stood enthralled before a painting, or been pushed into the most poignant nostalgia because a painting might have reminded someone of a lost lover. There are so many stories he would have observed over the years.

Yet, all of his stories lay concealed behind his silence and his anonymity. There is so much depth and meaning in the

mere presence of this desolate figure in the art gallery, that he himself stands as a metaphor for art. He may remain unnoticed and inconspicuous from our gaze. We may never notice his presence. Yet, with his inconspicuous presence blending into the whelming silence, he unknowingly becomes an indispensable part of our cathartic experiences at the art gallery. His anonymity stands as a guiding metaphor for us to shed our layers of cosmetic identities for a brief moment and stand in the naked presence of the works of art. He is not just a mere keeper of the art gallery, but a sentry of the cosmos that Gaitonde, or for that matter any other artist, would have sought to create through his paintings.

Gaitonde’s painting has hung there for more than three decades. With such a long span of time spent in the silence of an art gallery, the aged oil paint begins to crack, giving an abstract depth to the work of art. It is strange how time and silence seep through those cracks. What stories do those cracks hold in them? Maybe the keeper knows. The sagging, wrinkled skin under his eyes is not unlike the cracked oil paint. Both have seasoned over time and in silence. Both seem to hold untold stories. Before leaving the gallery, I asked him for directions to the NGMA library, though I knew the way fully well. Again, his words came forth with zest. It was my way of drawing closer into the embrace of this inconspicuous piece of art—the keeper of the art gallery.

[Images accompanying this article are available on the EPW website.]

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OBJECTIVES OF THE PROGRAMME

- 1 To prepare students to become excellent trade policy-makers and key strategists on trade issues in the corporate sector, involved directly or indirectly in international trade and financial transactions.
- 2 To equip students with a set of tools, which would help them to solve real world problems.
- 3 To prepare students to be full-time academicians, with specialized knowledge in international economics and finance.

ELIGIBILITY

Minimum qualification for admission to the programme is Bachelor's Degree in any discipline with: (a) at least 50% marks in aggregate [45% in case of Schedule Caste (SC), Scheduled Tribe (ST) & Person with Disability (PWD) categories] and (b) Mathematics at the higher secondary or higher level. **MODE OF ADMISSION** On the basis of written test and personal interview. Written test will be held at IIFT New Delhi and Kolkata Campuses. Candidates who are in final year of exam are eligible to apply. No age limit.

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RESERVATIONS

Seats are reserved as per Government of India rules. The reservations are subject to candidates meeting the admission requirements of the Institute under different categories

For Foreign Nationals & NRI :

- Minimum qualification for Foreign Students / NRIs is a CGPA of 4 in a 5-point scale or 8 in a 10-point scale (or equivalent) Bachelor's degree in any discipline with (a) at least 50 percent marks in aggregate and (b) mathematics at the higher secondary or higher level.
- No Age limit.
- Candidates who are in final year of exam are also eligible to apply.
- A maximum of five seats are allocated to the Foreign Nationals / NRIs. The admission will be offered on the basis of academic records (CGPA) in Graduation level. A selection committee will scrutinize the applications from Foreign Nationals / NRIs and accordingly prepare the merit list.

HOW TO APPLY

Candidates can submit application online by visiting IIFT's website at www.iift.edu and clicking at "ADMISSIONS 2020" icon available on the homepage wherein detailed guidelines are available.

APPLICATION FEE:

For General/OBC Candidates	₹ 1600/-
For SC/ST/PWD Candidates	₹ 800/-
For Foreign Nationals/NRIs	US\$80/Rs 4500/-

Important Dates

Last date to apply online : **Sunday, 17th May, 2020**

For any query, contact; Shri Gaurav Gulati, Dy. Registrar

Indian Institute of Foreign Trade, B-21, Qutub Institutional Area, New Delhi-110016

Ph.: 011-39147213 (D), 011-39147200 – 05 (PBX) Email: admission@iift.edu, Website: www.iift.edu

KOLKATA CAMPUS 1583 Madurdaha, Chowbagha Road, Ward No. 108, Borough XII, Kolkata-700107.

Ph.: 033- 24195700 & 24195900 (PBX) Fax: +91-33-24432454 Email: admission@iift.edu Website: www.iift.edu

Dr. P.K. Gupta, Registrar

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