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Condemning Harassment

We, the members of Jan Swasthya Abhiyan and Medico Friend Circle, strongly condemn the harassment and police brutality meted out to Sudhakar Rao of Visakhapatnam. On 16 May 2020, Rao, a government doctor and anaesthetist at the Area Hospital, Narsipatnam, Visakhapatnam district of Andhra Pradesh was manhandled by the police. He was beaten, his hands tied, and was paraded half-naked on the streets of the Visakhapatnam city before being taken to the King George Hospital. The shocking videos of this event in the news and social media are evidence enough that such a treatment has indeed occurred. The alleged offence was that he was inebriated, not of sound mind and was using foul language. The ill-treatment is at odds with the nature of the offence and raises the question as to why this has occurred. Digging into the background of this Dalit doctor shows that he has been suspended since 8 April 2020 for criticising the Government of Andhra Pradesh for its callousness with respect to the provision of personal protective equipment (PPE), specifically N95 masks, for doctors treating COVID-19 patients in intensive care units and operation theatres at great risk of infection. In this time of the pandemic, any complaint by a health worker with respect to their own protection must be taken with utmost seriousness and respect.

It also needs to be noted that there is a severe shortage of anaesthetists, and their work needs them to come in close contact with patients who may either be explicit or latent carriers of the virus. The event faded from memory till 16 May when the public humiliation was carried out. Rao has averred in personal communication to the media that the police planted liquor bottles in his car and that he and his family were constantly threatened and abused on the phone for his public criticism. Rao's family has pleaded that he is in a bad mental state because of the harassment meted out to him. Though the police assert that there was no connection between his public criticism of the government and the humiliation meted out to him, there has been police excess. However, it is puzzling as to why this excess occurred unless one looks at Rao's recent criticism of the Government of Andra Pradesh and his subsequent suspension. The use of a stereotype of alcoholism, drug addiction and mental unsoundness to stigmatise the doctor is not only to justify police actions but also to discredit his criticism of the government's callousness on the issue of the provision of PPE. Such treatment of a doctor will demoralise the health personnel struggling to provide medical care in government hospitals with inadequate protection. Moreover, a person who is indeed of unsound mind or otherwise anxious, depressed or even inebriated needs a humane and caring response, not violence and brutality. In this specific case, it must be pointed out that parading a half-dressed person in public would never have occurred if the doctor had belonged to one of the upper castes with a strong political connection. It has been reported that the police constable who has ill-treated the doctor has been suspended.

The Jan Swasthya Abhiyan and Medico Friend Circle condemn this atrocity and call upon the Government of Andhra Pradesh to punish the police functionaries concerned for the said act of brutality towards a doctor and a human being who was unable to protect himself. We demand that the Government of Andhra Pradesh issue a public apology to Rao and provide protection to him from all sorts of harassment and abuse. We demand that the enquiry regarding the charge against Rao be completed as soon as possible, and he be reinstated to work at the earliest, ending the mental torture he and his family are facing. We demand that informal gag orders on doctors criticising the functioning of the system be lifted forthwith. We further demand that adequate PPE be provided to doctors who work selflessly and are at increased risk in the pandemic.

Jan Swasthya Abhiyan,
Medico Friend Circle

ECONOMIC & POLITICAL WEEKLY

Online Teaching during COVID-19

Thanks to the novel coronavirus, online education and online teaching have become the fad of the day. All of a sudden, "education" has become so very essential amid the pandemic that school after school, college after college, and university after university is vouching for online teaching and making it mandatory for the teachers to take online classes as if the students will suffer immensely if not taught for a few months. These institutions have not taken into account ground realities and its pitfalls in doing so.

Online teaching is not even remotely a good substitute to in-class teaching. Even assuming online teaching to be the last resort, it is best only in a small group of 10 to 15 students where there is some scope for interaction between the teacher and the students, without which imparting education is as good as politicians delivering speeches. Mass education predominates India, for which online education is a complete misfit.

Both teachers and students need to be trained in the offline mode for delivering and assimilating online knowledge. How many schools, colleges and universities have this facility of imparting training? Has any institution thought of this seriously before directly instructing to get started with online teaching, assuming that things will fall in place automatically? Or will the necessary knowledge required to work with this new technology automatically dawn on the two most important stakeholders of online education?

The fundamental requirement for the success of online teaching is the availability of strong internet connectivity and modern-day electronic gadgets. It is well-known that we rank very low with respect to digital infrastructure. It is also not a hidden fact that India suffers from a digital divide. Children in urban areas have better, but not the best, access to these prerequisities compared to children in rural areas. Not all in urban areas have this privilege. Only the well-to-do families can afford costly equipment. In this way, online education becomes a tool to further exacerbate the knowledge divide and thereby widen economic inequalities. It will create a new class of urban gizmo landlords who will subject all others to new forms of exploitation in the newly emerging digitalised capitalist system.

In the grip of the fear of COVID-19, it is reasonable to assume that both the teachers and the students are not in a mental state to pursue the learning exercise in its true spirit. What purpose, then, will such online education serve, except completing an academic ritual of adhering to the schedule of teaching and conducting exams?

I fail to understand why the so-called intellectuals who suggest implementing online education simply assume that everyone has private and adequate space at home, peaceful surroundings, unlimited access to high-speed broadband, an army of latest electronic gadgets, mastery over hardware and software, and complete peace of mind. In fact, this luxury is available to less than 0.01% of Indians. Let someone open the eyes of these self-declared intellectuals and make them realise that we are living in India and not in Switzerland.

Ketan K Shah
AHMEDABAD

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ECONOMIC & POLITICAL WEEKLY

No Stimulus in Economic Stimulus Package

Atmanirbhar Bharat Abhiyan falls short of being either a relief or a fiscal package.

What actually is the central government's Atmanirbhar Bharat Abhiyan package? Is it an economic stimulus or a relief package? As an economic stimulus, prima facie, it has followed the textbook prescriptions of supplementing fiscal incentives with the Reserve Bank of India's (RBI) monetary measures as declared on 27 March and 17 April 2020. However, the government seems to have taken up this coalescing exercise more seriously in its "literal" sense by adding up the additional liquidity of ₹5–₹6 lakh crore provided by the RBI's credit-easing decisions to arrive at a ₹20 lakh crore worth package, not to mention the earlier relief of ₹1.7 lakh crore announced by the finance minister on 27 March 2020. Though the concerns at this point are many, there are some obvious ones.

First, is the veracity of such calculation. While the central bank's current liquidity decisions contribute to about 25%–30% of this ₹20 lakh crore package (notwithstanding the liquidity generated by its long-term repo operations), it must be remembered that this additional liquidity is generated within the banking system and can only reach the broader economy through bank lending. This, in essence, is way different from the direct expenditures of the government—as warranted during a national disaster like the COVID-19—and it only inflates the value of the package, which, in turn, potentially bloats the electorate's hopes and aspirations from their government. Second, and in tandem with the first issue, is the concern as to whether the fiscal measures announced by the finance minister between 13 and 17 May 2020 can create conditions for the banks to lend to the broader economy.

Here, one should remember that monetary policies can only make credit cheaper. It, however, cannot compensate for fiscal stimuli, especially in a country that is now even more entangled in a liquidity trap. While exploring whether ₹20 lakh crore can help the economy tide over this unprecedented crisis, it is disconcerting to realise that even less than 10% of the total amount is earmarked for direct transfers, primarily through the Pradhan Mantri Garib Kalyan Yojana package. The efficacy of reviving the macro foundation of the economy is undeniable, but at this hour of such extraordinary human miseries it is not clear why "labour"—claimed to be one of the four pillars of the self-reliant (*atmanirbhar*) India in the Prime Minister's address to the nation on 12 May 2020—loses its traction to "liquidity" and "law," the other two of the four pillars.

Let us take, for example, the package declared for the micro, small and medium enterprises (MSMEs), with the micro and small units, particularly, considered to be major employers of the unorganised, migrant labour force. On the one hand, there are innumerable liquidity easing measures, such as ₹3 lakh crore collateral-free automatic loans for business, including MSMEs, ₹20,000 crore subordinate debt for MSMEs, ₹50,000 crore equity infusion through MSME Fund of Funds, among others. On the other hand, a revision in the definition of MSMEs by using a composite investment-turnover category has brought new ambiguity in the sector. By assuming a turnover at five times of investment for all three categories of enterprises, their heterogeneity in terms of (capital) labour intensity and turnover is assumed away. In so doing, the sectors particularly important for employment generation are at the risk of falling out of the MSME threshold. Of what use will the liquidity facilities be to them?

A similar ambiguity is lingering over the (claimed) employment generation for the return migrants through the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). While the central government has promised an additional allocation of ₹40,000 crore generating nearly 300 crore person days of work at an average wage rate of ₹202, how much of that will materialise in practice is doubtful, particularly with states like Rajasthan, Uttar Pradesh, and Madhya Pradesh—that are among the top 10 performers in terms of providing employment under the MGNREGA—bringing out labour law ordinances to do away with issues like minimum wages, optimal work hours, safe work conditions, etc, in the name of reviving (private) investments. Ironically, the finance minister's announcements on reformed governance consider the "ease of doing business" as the only credible criterion to be fulfilled, while a pressing issue like "health reforms and initiatives" is fleetingly discussed without laying forth any detailed plan of action or financial allocations towards the relevant item heads.

It is true that the government is juggling with four difficult issues at this point: managing the onslaught of the pandemic, which now seems to be on a rising curve; reviving an economy that is declining equally fast due to a lockdown rested on the back of an ongoing economic downswing; allocating financial resources towards mitigating these two equally forceful but opposite trends; and planning an economic rebound in the post lockdown scenario. Many may argue that the current package targets for a macroeconomic revival as part of the government's exit plan from the

lockdown. But, have we already tided over the immediate impacts of the pandemic? At this point, the specific role of the fiscal stimulus should be to increase public spending in physical or human capital, raise money in the hands of residents by direct cash transfers and subsidies, and provide safety nets like job guarantee and unemployment benefits. Despite being 10% of the gross domestic product, the Atmanirbhar Bharat Abhiyan is far from being that kind of a fiscal package.

The Idea of 'Atmanirbhar' India

The central government's idea of "Atmanirbhar" India is more instrumental than substantive.

The central government has been using different semiotics to communicate to people the steps it has been recently taking in order to deal with the pandemic. The word "atmanirbhar" or self-reliant forms the latest addition to its vocabulary. The word under reference is not empty, but has normative content that has its philosophical roots both in the nationalist as well as the moral economy suggested by M K Gandhi. "Embedding" economy into indigenous structures of production is common to both perspectives. Thus, the word "atmanirbhar" is loaded with a comprehensive meaning that is open to debate and discussion. It is this conception that combines both **c**apitalist economy that underlies the nationalist economic thinking and Gandhi's moral economy that seems to have prompted the governments in the past to use the ideal of self-reliance as an effective rhetoric. This word, thus, has a long history.

The present ruling dispensation at the centre has also resorted to the word self-reliance by making it part of its mission aimed at remodelling the Indian economy. This mission, however, is based on the following assumptions that are likely to go haywire. First, as many commentators have pointed out, the government would like to achieve this mission within the period of four years, the time period left for this government. The implied intention behind this declaration of the stated mission of self-reliance is that the ruling party is anticipating its own rule for a longer period, perhaps till it completes this mission. Such hidden anticipation, however, has adverse implications for vibrant democracy, democracy based on the principle of power by rotation. It, however, is altogether a different thing, if the spokesperson of the central government is intending to use the mission of self-reliance as just an idea that can be taken forward by any political party that may become a ruling party in the future**.** But, this rather generous expectation is silent in the assertion about self-reliance.

Second, as has been clear from the press statement of the finance minister, the idea of atmanirbhar is sensitive to the moral need of holding hands with the whole world, but the government does not seem to be clear as to how it will reverse the inflow of international finance capital in India that would help the country retain its moral advantage at hand-holding the whole world. Given the interdependability that has become more acute in the current crisis, the inflow is going to remain irreversible and, thus, reduce the idea of hand-holding to the level of mere rhetorical generosity.

Third, the central government's idea of self-reliance seems to be time-tested to the extent that it has taken into consideration only the pragmatic need to deal with the present crisis having a short-term impact on the economy and society. The government seeks to deal with the economic crisis by making monetary allocation to different sections. It is understandable to the extent that it provides a new lease of life to the Indian economy. But this approach, from the two different standpoints as mentioned earlier, appears to be much restricted in its definition of atmanirbhar. The current idea of self-reliance as proposed by the central government is silent about the need to become self-reliant in achieving equality and delivering justice to the people. The substantive conception of self-reliance would not accommodate in its logic structures of inequality that have had their tragic manifestation in the current crisis produced by the novel coronavirus.

The uneven distribution of urban spaces has enabled a privileged few to capture huge chunks of land, leaving minuscule portions for the habitation of a much larger population. The pandemic has underscored the need for an egalitarian distribution of urban space. This would ensure the urban disadvantaged real freedom from susceptibility and vulnerability to the health crisis that is not just pandemic but much more endemic in nature. For example, the absolutely poor quality of life of those who are stuffed into urban slums in India results in infecting lakhs of people with chronic diseases such as tuberculosis (TB). Let us not ignore the fact that the acute problem of congestion that exists in the urban slums across India has created a differential impact in the context of the spread of the novel coronavirus. Slums and semi-slums and areas with congestion and without any required space for free ventilation, made these localities more vulnerable to the novel coronavirus. Thus, creating a physically healthy society is one benign aspect of the ideal of India becoming self-reliant. Self-reliance would not mean making people dependent on either the private hospitals or the public health-related schemes, but to create health facilities with sophisticated care centres in the public sector.

The mission of making India atmanirbhar in its official version seeks to embed the economy into local structures of production and hypothetically suggests a balance between aggregate demand and supply. Such ideas may help arrest the flow of urban migration that has otherwise acquired an acute form of distress. This, in an ideal sense, would mean that the state will have to make massive investments not just in the economy but also the social sector, as well as in the areas of environment. Without holistic, long-term planning and a stronger political will for the radical restructuring of the economy on egalitarian lines, the idea of atmanirbhar may remain just a slogan.

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Significance of the Petitionary Genre

The worsening effects of the COVID-19 pandemic seem to have pushed political and popular expressions into a petitionary mode. In such a mode, unlike the legal petition driven by a procedure, a rhetorical performance is at play calling out for the ethical and moral capacity of both the state as well as the people in distress. In such a petitionary genre, the capacity of expression gets mediated by the force of moral appeal that entails the invigoration of the conscience, which, in turn, makes it necessary to put compassion before reason and apology before ideological arrogance. Thus, the state, on priority, needs to be compassionate in mobilising various resources, such as transport, food, and medicine, for the footslogging workers. An appeal as a moral force seeks to compel the state and political actors to shake off complacency and the sense of arrogance that is informed by both ideology and politics. Apology, thus, comes as a subtext of appeal.

There is a wider spectrum on which the word "appeal" seems to be operative. It has almost a paradigmatic range. Put differently, the word currently under reference finds its public expression at different levels with distinct meanings. For example, the appeal made by the spokesperson of the state to the people to observe social distancing or the appeal to migrant workers to stay wherever they are wherever they are addresses this issue at wider levels and is infused with the meaning. Such meaning suggests that the state is not fully equipped to control the situation and is unable to provide adequate help to the workers in distress. On the other side of the spectrum, the workers, farmers and television artists have been appealing to the government to provide the former with immediate help for fulfilling different but dire needs. For example, workers have been making repeated appeals for transportation. The belief and knowledge of these sections that the state has resources to provide immediate help to the former form the basis of their appeal. On yet another end of the spectrum, the industrialists—big and small—have been appealing to the central government for help. Apparently, such appeal may contain an "altruistic" meaning, which is to say that the interest of the workers are more important than private interests.

An expression of appeal, thus, emerges with co-applicability. The co-applicable expression of such an appeal indicates the helplessness of people against the government's limits that are unfolding at multiple levels. In a deep moral sense, workers on march and farmers who are destroying their crop for want of a market, both cases involve an element of appeal; an appeal to the state to over come their limitations. And, yet, the government is not powerful enough to enjoy the status of being benevolent. Because it is aware about the limits of such benevolence.

An appeal, however, needs to have the quality of being just. It is just as long as it constitutes within it interrelated elements such as compassion and conscience. An appeal acquires the quality of justness particularly on two counts. First, it defines itself in terms of availability of resources with a person, agency, and the state and the latter's will to provide such help. Put differently, an appeal is ineffective in regards to a person, agency, or state with regard that has no capacity and lacks the will to help. In the workers' belief and knowledge, the central as well as the state governments do have the capacity to ferry the workers and hence an appeal made by the latter makes sense. The power of appeal, thus, is contingent on both the material capacity as well as the ethical power of conscience. Second, compassion as a moral resource seeks to aid the "official" reason to not only acquire soundness, but, with such a quality, it seeks to motivate the state or an individual to act promptly so as to bring relief to the distressed people. In the project of removing wide-scale distress, compassion has to come before the official, technical, and procedural reason. Thus, the moral force of appeal tends to generate a compelling impact on the governments that have to account for their action or inaction by giving reasons that will be weak without the support of compassion. In appeal, there is a mechanism of stimuli and response, or asking and giving reason.

However, such an order, which is internal to the concept of appeal, is not followed by some governments. The official reason takes precedence over compassion. While some states may have an official reason to seal the borders for the migrants who, in the perception of the governments, are feared to be the potential carriers of the virus. But, such states lack the sense of compassion that would be demanded on the part of the state to minimise the suffering of human beings. The governments in question need to realise that an appeal with justness would help the former keep them in close moral touch with their conscience.

Gopalpur

FROM 50 YEARS AGO

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Drop The Bomb!

The Government and its critics, in Parliament and outside, have debated the vital issue of whether we should build an independent nuclear weapons system or not, at a frighteningly simplistic and absurdly uninformed level. Attempts at gaining political capital have not stopped even here

This political frivolity raises the question whether our political system and its operators are capable of providing the firm, long-term political backing and continuous financial support that a nuclear defence programme will demand. Political pressures resulting in stop-go methods and financial jugglery will not do. Clear directives will be required from the Government. Flexibility and initiative at every level of decision-making will be demanded of administrators and scientists. The argument that building the Bomb will provide the incentive to clear up wellestablished political and administrative cobwebs is wishful thinking. With the political system in a state of flux, the continuance of parliamentary democracy itself cannot be taken for granted. The discipline and firm leadership required for such a project along with the ultra-nationalism it might generate could precipitate a change in the political system towards right-wing authoritarianism, an eventuality which pan ties like the Jan Sangh would no doubt welcome.

Building a nuclear weapons system presupposes the capacity to deter not only China but also the other nuclear powers — America, Russia, Britain and France…

A Regressive World View on Scheduled Tribe Reservations

ALOK PRASANNA KUMAR

The Supreme Court's setting aside of the Andhra Pradesh government's preference scheme for Scheduled Tribes in schools in Scheduled Areas shows up a world view which believes that Adivasis need to be pushed into the "mainstream" and compelled to abandon their "backward" culture. However, this goes against the constitutional vision, as made clear in the Andhra Pradesh High Court's majority judgment in the same case, which articulates a more nuanced and sensitive position on the rights of India's Adivasis.

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Cultural theorist D R Nagaraj, in the essay "The Tiger and the Magical Flute: Notes on Minorities," questions the categories "ethnic minority" and "religious minority" (2012: 308). He argues that these two categories insufficiently reflect the complex reality of such communities, and offers the terms "civilisational minorities" and "societal minorities" instead. Civilisational minorities, in Nagaraj's essay, are those who have been left out or crushed by "modern development," placing India's tribal peoples in this category. According to Nagaraj, the difference between tribals and non-tribals is civilisational, that they are effectively part of two civilisations: one ("modernity") seeing the other's self-sufficiency and self-contained cultural world as being a threat to its own existence.

Nagaraj's categories give us a useful framework in understanding the recent, controversial constitution bench judgment of the Supreme Court in *Chebrolu Leela Prasad Rao v State of Andhra Pradesh* (2020; C L Prasad Rao case). The Court has unanimously held the policy of "100% reservations" of teaching jobs for Scheduled Tribes (ST) in schools in Fifth Schedule Areas of Andhra Pradesh (AP) and Telangana to be unconstitutional.

With the Court barely functional, thanks to COVID-19, the judgment received muted attention. It found favour among mainstream newspapers, which decried the reservation as "overzealous" (*Hindu* 2020), called the judgment a "significant step forward" (*Financial Express* 2020) and a good reason to "review" the reservation policy (*Economic Times* 2020). Such views were expressed in unsigned editorials, and none of the newspapers deigned to examine the purpose of "100% reservations" or give space to anyone from India's Adivasi community to offer their views. Only online portals offered some critical comment on this judgment (Bhaskar 2020).

Not that Adivasi movements in AP, Telangana, and the rest of the country have taken this judgment lying down. There has been severe criticism of this judgment and there are plans to start a stir once the lockdown is lifted (Bhattacharjee 2020a). The state of Telangana plans to file a review petition against the judgment (Bhattacharjee 2020b), and likewise the state of AP (*New Indian Express* 2020).

The C L Prasad Rao judgment can be critiqued purely from the perspective of constitutional provisions and precedents to see if it adheres to either (Sangal 2020). I would like to draw from Nagaraj to offer an alternative way of critiquing the judgment—that it represents the world view of "modern civilisation," which sees the Adivasi way of life as a threat. In doing so, I propose to examine not just the judgment authored by Justice Arun Mishra in the Supreme Court, but also the majority and minority views (authored by Justice V V S Rao and Justice S B Sinha) in the then AP High Court in the same case (*Pulusam Krishna Murthy v T Sujan Kumar and Others* 2002; P Krishna Murthy case). I argue that Justice Rao's view more closely hews to the constitutional scheme to protect the Adivasi way of life, and the opinions of Justice Mishra and Justice Sinha are in violent opposition to the constitutional ethos when it comes to tribal communities. Whereas Justice Rao believes that the Adivasi way of life and culture is inherently valuable, those of Justice Sinha and the Supreme Court seem to be that it is inherently worthless.

This is a case that raises many more constitutional issues, including the interpretation of Schedule V of the Constitution, but, for the moment, I will focus on the essential question of the constitutional validity of the measure to hire only locals for tribal schools in the context of Part III of the Constitution.

Adivasi Way of Life as Worthless

In the P Krishna Murthy case at the AP High Court and in the C L Prasad Rao case at the Supreme Court, the core

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question was the same: Could AP mandate that all jobs of primary school teachers in tribal areas of the state (as defined under the Fifth Schedule of the Constitution) would be filled only by qualified members of the local tribal community?

When challenged by non-tribal applicants, the government order (GO) imposing this requirement was first struck down by the AP Administrative Tribunal, later upheld by a majority of 2:1 in the high court, and finally struck down by the Supreme Court. The justification offered by the AP government in court for this is in the GO itself:

> In order to strengthen the educational infrastructure in the Scheduled Areas, to promote educational development of tribals, to solve the phenomenal absenteeism of teachers in the Schools situated in Scheduled Areas and with a view to protect the interests of local tribals have decided to reserve the posts of teachers in favour of local Scheduled Tribes candidates.[1]

On the face of it, this GO offers a different justification from the ones usually offered for reservation, namely lack of access to educational opportunity and representation. The GO attempts to give tribal children a reasonable chance at education in the first place by putting in place educational infrastructure that is suitable to their needs and interests. One of the arguments raised on behalf of the government and beneficiaries of this measure is that the GO does necessarily create a "reservation," which needs to be justified under Clause (4) of Article 16 of the Constitution, but imposes a measure which is traceable to Schedule V of the Constitution to protect the interests of tribal communities.

How do Justice Sinha (in the high court) and Justice Mishra (in the Supreme Court) deal with this line of argument?

Sinha engages with the argument to the extent that while he feels it is a legitimate aim of the state, it has to take second place to the need to ensure "equality" in opportunity in employment. While he is very generous with his suggestions on how the state should ensure attendance of non-Adivasis in schools for Adivasis (*Pulusam Krishna Murthy v T Sujan Kumar* 2002: paras 116–17), Sinha's field of view sees the need to protect the equality in employment opportunity for non-tribals as a directive of a higher order, than the need to ensure a more appropriate educational infrastructure for tribals.

Mishra's judgment, however, makes his contempt for Adivasis and the tribal way of life fairly clear as described in this passage:

> The formal education, by and large, failed to reach them, and they remained a disadvantaged class, as such required a helping hand to uplift them and to make them contribute to the national development and not to remain part of the primitive culture. … They are not supposed to be seen as a human zoo and source of enjoyment of primitive culture and for dance performances. (*Chebrolu Leela Prasad Rao v State of Andhra Pradesh* 2020: para 107; Bhaskar 2020)

In his world view, they are little more than savages who need to be dragged into modernity by the non-tribals who are ostensibly more deserving of these jobs. The underlying casteism of this statement is obvious: only upper castes can be meritorious while reservation is doled out as charity to keep up a pretence of representation.

The validity or the necessity of the government's goals to improve education among Adivasis, reduce absenteeism, and ensure the Adivasi culture and way of life are barely mentioned in the judgment, and the government's argument on this front is simply ignored. Like Sinha, he has gratuitous advice to offer to the government on how to change the reservations system in the name of the poor and backward who are not enjoying the benefit of reservations, thanks, in his imagination, to a few "affluents and socially and economically advanced classes" among the Scheduled Castes and STs (*Chebrolu Leela Prasad Rao v State of Andhra Pradesh* (2020: para 153).

Both Sinha and Mishra consider this to be a "100% reservation" and proceed to decide the constitutionality on this basis. The same framing has been wholeheartedly adopted in the reporting of the case. Such a framing of the measure is not an objective, uncontested one; no real reasons are offered by the Court to dispute why the underlying logic of the measure is not sound.

Without saying it explicitly, what Justices Sinha and Mishra say implicitly is that preserving the Adivasi way of life and ensuring the more appropriate education of Adivasi children is secondary in the constitutional scheme of things. "Equality," that is to say, imposing an artificial and superficial equality when it comes to the hiring of teachers for schools in Scheduled Areas is, in their way, what the Constitution demands and, therefore, Adivasis must be taught by outsiders even to the detriment of their culture and way of life.

Adivasi Way of Life as Valuable

The majority opinion in the P Krishna Murthy case (authored by Justice Rao and concurred with by Justice Motilal B Naik of the AP High Court) has a very different take. Justice Rao hesitates to call the measure a "reservation" in the strictest sense of the word. While he applies the tests laid down in *Indra Sawhney v Union of India* (1992) to decide whether the measure would be permissible under Article 16, the core of his reasoning is based on the need to ensure the provision of adequate educational facilities for tribal populations in the state. Indeed, he does not even consider tribal schools in Scheduled Areas to belong to the same category as regular employment in educational institutions under the state.

One crucial paragraph clearly highlights the differences in the approach of the two sets of views in this case:

> This brief resume would show that for protection of the ST and for administration of Scheduled Areas, the Constitution permits to view the fundamental rights of non-tribals in a different perspective; that is to say, the protection and interest of STs would take precedence over the fundamental rights of the non-STs. In one way, affirmative action in Indian Constitutional practice being a dynamic concept; can arguably—even override fundamental rights of the non-tribals in non-Scheduled Areas. (*Pulusam Krishna Murthy v T Sujan Kumar* 2002: para 151)

This is also a remarkable reading of the provisions of the Constitution and one which breathes new life into the idea of social justice for Adivasi communities. It affirms that fundamental rights are not just the prerogative of those who can claim them before the court but also those who cannot possibly come to the court. It indicates that expounding a constitution is not just an exercise in

turgid hermeneutics, and is rather about understanding the larger vision of the framers and the goals that they set out for the state.

Such a reading of the constitutional provisions relating to the Adivasi community in India hews as closely as possible to the views of the key architect of the Fifth Schedule, Jaipal Singh Munda. An Adivasi himself, he firmly believed that the Adivasi way of life need not justify itself in any way to the "mainstream," though, perhaps, it ought to be the other way round.[2] The inclusion of the Fifth Schedule was to not only redress historical wrongs against the community, but also affirm its right to choose its own way without being dominated by the needs of "modern development" (Munda 2017). Sadly, this approach has been ignored by successive governments and rejected, it would seem, by the Supreme Court in the C L Prasad Rao case. The optimistic vision of the Constitution about the place of Adivasis in India seems to have been misplaced, and Nagaraj's fears for the future of this "civilisational minority" seem all too real.

In Conclusion

Without properly engaging with or examining the basis for the preference given and dismissing it as "100% reservation," the Supreme Court's eventual conclusions about the constitutional validity of the measure are poorly reasoned and justified. The world view that informs this approach must be resisted as much as the conclusions of the judgment. The Supreme Court's attempt at calling into question the "reservation policy" on the basis that it is not helping the most backward must be dismissed as an act of "concern trolling" and not born of any genuine concern for social justice.

On the other hand, as Justice Rao's judgment shows, there is nothing in the Constitution mandating that Adivasis ought to be crushed by the modern state in such a manner. In fact, the constitutional goal is quite the opposite and needs to be restored by the Supreme Court, if not Parliament, at the earliest.

NOTES

1 GO Ms No 3, dated 10 January 2000, recital 9 extracted in *Pulusam Krishna Murthy v T Sujan Kumar* (2002: para 23).

2 See Constituent Assembly Debates, Volume I, para 1.9.66, 19 December 1946 (https://www.constitutionofindia.net/constitution_assembly_debates/volume/1/1946-12-19#1.9.66).

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All URLs are viewed on 16 May 2020.

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Health and Nutrition of India's Labour Force and COVID-19 Challenges

UMA LELE, SANGEETA BANSAL, J V MEENAKSHI

Can the "post-COVID-19 normal" emerge better for India's food supply and demand management, with a clear goal of zero hunger? Presently contributing one-third of the global undernutrition burden, a daunting challenge that the country must overcome now is of resuming broader based economic growth with a healthy labour force. Given this, India needs a data-driven exit and post-exit strategy from the COVID-19 lockdown that will not only mitigate the immediate food crisis faced by millions of poor households, but also reduce the long-term structural bottlenecks that limit poor households' access to food.

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While handling the COVID-19 crisis, will India make use of the opportunity to address the long-standing challenges of health and nutrition of low-income households, particularly of women and children, which are central to the three prongs of the health sector, food sector, and the macroeconomy? From the macroeconomic perspective, the International Monetary Fund (IMF) has estimated a global gross domestic product (GDP) loss of $9 trillion. A small fraction of that invested in pandemic preparedness would have had a large pay-off.

Better supply and demand management of food would: (i) avoid the immediate food crisis for millions posed by logistical issues between the farm and the plate (Pangestu 2020); (ii) contribute to effective demand by reducing long-term, structural bottlenecks inhibiting supply reaching vulnerable consumers; (iii) contribute to the global sustainable development goals (SDGs) that are important since India presently contributes about one-third of the global undernutrition burden; and (iv) prepare India to avert future disasters while resuming broader based economic growth.

India extended its lockdown beyond 3 May 2020 by two weeks, to contain the spread of COVID-19, buying time to protect its 1.3 billion people from the virus's uncertain trajectory. Despite enormous hardships, the lockdown appears to have strong public support (Desai and Pramanik 2020). Globally, the reliability of this strategy in bending the curve or reducing future waves of COVID-19 is, by no means, certain. Policy responses are challenging, although global knowledge is accumulating rapidly.

With sudden job losses, the lockdown created acute hardships for millions of urban and rural households, most working in the informal sector with no contracts, including 22 million migrants, likely moving from high-income metropolitan locations with higher case rates to areas of migrant origin in poorer states, such as Bihar and Uttar Pradesh, contributing to spread of the virus (Imbert 2020). How much can India's formal and informal social safety nets be strengthened to deal with the challenge?

The diagnosis and solutions are well-known in India—already working in several cases—but overcoming weak implementation and monitoring, including in the Prime Minister's extensive agricultural policy reforms announced on 2 May 2020 and the finance minister's steps announced on 14 May 2020, which will be essential. Implementation remains a challenge, where poverty and undernourishment are acute (*Times of India* 2020).

The importance of testing, tracing, isolating, and treating those infected with COVID-19 to reduce its spread has huge implications for India. It means India should substantially increase investment in public health, including sanitation and epidemiological research. Concurrently, India should adopt and vigorously implement a "zero hunger" goal. An estimated 194 million were hungry, lacking purchasing power, before COVID-19. The pandemic is projected to increase poverty and hunger by several million. Social safety nets, in-kind and cash transfers, should be increased substantially to create effective demand for food among them. Furthermore, policymakers should prioritise worker safety to assure labour's return to broad-based, efficient, and productive growth.

Opportunities and Challenges

Fortunately, India's food production has done well in recent years, with large public sector food stocks of 57 million tonnes, which allows for food distribution (ICAR–NIAP 2020). Strengthened public distribution was already needed, because economic growth had reduced poverty much too slowly and employment growth had slowed even before the pandemic. India's largely privately

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traded horticulture production has also grown more rapidly than food production (313.85 million tonnes on 25.49 million hectares in 2018–19), outperforming staple grain production (284.95 million tonnes for the same year) (ICAR–NIAP 2020). India now ranks second globally, behind only China, in fruit and vegetable production (GoI 2018b). Per capita availability of milk in India was 394 grams per day in 2018–19, an increase of 40% since 2009–10, but availability varies substantially across states (NDDB 2019). Smallholder dairy is reportedly adjusting well, switching from the private sector to the cooperative sector in sales and milk processing (Rath 2020).

In short, diets have improved, but India still contributes a third of the global burden of hunger and malnutrition. Also, India has a growing incidence of non-communicable diseases (particularly, diabetes and cancers), increasing the population's vulnerability to COVID-19, and it has the largest number of the world's children, 4.3 million, under 18 years.

Persisting undernourishment: Together, women and children comprise about 70% of India's population. Incidence of undernourishment is higher in women than men (average body mass index ≤ 18.5), varying considerably across states and wealth quintiles, although men fare only slightly better. The prevalence of undernourishment amongst women is as high as 31.6% in Jharkhand, and low as 6.4% in Sikkim. Undernourishment is high in Bihar, Madhya Pradesh, Gujarat, and Rajasthan, which are also the states with high incidence of stunted children. In the lowest health quintile, 36% of women are undernourished, compared to 11.6% in the highest wealth quintile; while among men, these shares are at 32% and 10.6%, respectively (IIPS and IFC 2017).

While under-five stunting, at 37.9%, compares to the developing country average of 25%, nearly 21% of children under five show wasting, which is more than twice the developing country average of 8.9%; and 51.4% of women in reproductive age have anaemia. Again, interstate differences in each dimension are considerable. Of the 100 poorly performing districts in stunting, Uttar Pradesh, Bihar, Madhya Pradesh, Jharkhand, Gujarat, Karnataka, and Rajasthan account for 78% of stunting (Menon et al 2017).

High levels of maternal and child undernutrition in India persist, despite strong constitutional and legislative policy commitments (NITI Aayog 2017). The National Food Security Act, 2013, mandates food and nutrition entitlements for children, pregnant women and breastfeeding mothers with maternity support; and the Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992, and the amendment act, 2003, provide a strong policy framework for protecting, supporting, and promoting nutrition interventions—especially during periods of greatest vulnerability for children and women. The National Nutrition Policy, 1993, complemented by other policies, such as the National Health Policy, 2002 and the National Policy for Children, 2013, provides a strong foundation for addressing immediate and underlying determinants of undernutrition through both direct and indirect interventions. The Twelfth Five Year Plan reinforced the commitment to prevent and reduce child undernutrition (underweight prevalence in children 0–3 years), as one of its core monitorable targets, binding multiple sectors and states to collective action (NITI Aayog 2017).

Migrant labour and employment: Temporary and seasonal migration for employment was about 13.6 million annually, seven times larger than permanent and semi-permanent migration (Bhagat and Keshri 2018). Temporary and seasonal migrants belong mainly to poor and lower socio-economic categories, in contrast to permanent/semi-permanent migrants. A large number of migrants return to their places of origin, as part of a circular migration, so contribution of migration to urbanisation and population redistribution remains much lower than expected, based on the historical experience of mobility transition in Western countries.

But, now, return migration poses risks of spread of the virus. On the other hand, high population densities make social distancing nearly impossible, even in rural areas, especially in poorest states, like Bihar and (eastern) Uttar Pradesh. A reported 70.7% of the population is rural, according to the labour survey (GoI 2019). The development impact of migration has been positive, but without policy support, and as elsewhere in the world, general perceptions about migration are negative and hostile (Bhagat and Keshri 2018). Poorest households are more widespread, and many are women-headed and lack assets.

The pandemic has had an enormous impact on employment, beyond that seen on migrant labour. The Centre for Monitoring Indian Economy (CMIE 2020) reports that, as in other countries, unemployment rates have skyrocketed, increasing nearly 2.5 times over one month to stand at between 23% and 26% in May 2020. The workforce is comprised of 51.7% of rural males but only 17.5% of rural females, and 53% of urban males but only 14.2% of urban females. The working population ratio (WPR) in current weekly status (CWS) was 49.6% for rural males, 14.8% for rural females, 51.7% for urban males, and 13.3% for urban females. Women's wages are two-thirds to three-quarters of male wages (IIPS and ICF 2017).

Measures to Overcome Challenges

To improve the undernutrition challenge for better health, a multi-level, multi-stakeholder market and safety net strategy is needed.

Strengthening food supply chains: The need of the hour is to help strengthen food supply chains that move nearly a billion tonnes of food, horticulture, livestock, fisheries production to consumption, removing constraints to production, storage, distribution, processing, packaging, retailing, and marketing, and making the most of institutional diversity in supply chains and information technology.

To this end, the National Institute of Agricultural Economics and Research Policy (NIAP) has already identified areas where quick wins in policy implementation will help foster market linkages, for example, not restricting the farmers to the Agricultural Produce Market Committee (APMC) markets, public information on

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all public and private storage facilities for surpluses, easy access of market actors to agricultural finance and information to traders linking them to farmers, cash transfers to households using direct banking transfers, creating awareness and, hence, demand for pulses, milk, fruit and vegetables, and the wider use of the public distribution system (PDS) to distribute grain stocks (ICAR–NIAP 2020).

The Delhi government, for example, has supplemented the PDS grains, allowing cash expenditures on other foods, such as milk and vegetables, as prices of milk and vegetables are rising in the wake of supply chain disruptions due to COVID-19. India's rapid expansion of financial inclusion infrastructure (Pradhan Mantri Jan Dhan Yojana) allows for transfer of money directly into bank accounts (Lele and Goswami 2017), but the banking infrastructure is much weaker precisely in those states with high incidence of poverty (GOI 2018a). Thus, a disproportionate share of benefits has gone to states with higher incomes. India certainly needs to increase its banking network and digitalisation in less developed states.

Moreover, as the finance minister noted in her speech on 14 May 2020, agriculture, as a state subject, has had its own challenges in a large country like India. Despite the fact that several state-level statutes of the APMC Act have been reformed, so far, they have been unable to create an integrated national agricultural market or address key issues, such as the expansion and modernisation of marketing facilities, improvement in marketing information and communication, and linking of small producers with efficient marketing channels. The Prime Minister's announced reforms will need to be backed by sustained investments in market infrastructure, both by the public and private sectors.

Empowering women in food chains: Women's empowerment and its effectiveness in their ability to implement decisions needs to increase, especially in the food production and consumption domain, where they play a large role. For example, nearly 85% to 90% of menial labour in the dairy sector is done by women.

The food environment, on the other hand, consists of the

> food entry points, the physical spaces where food is obtained; the built environment that allows consumers to access these spaces; personal determinants of food choices including income, education, values, skills, etc and factors that influence food choices, food acceptability and diets [by] physical and economic access to food proximity and affordability; food promotion, advertising and information; and food quality and safety. (HLPE 2017: 11)

India's institutional diversity in value chains consisting of cooperatives, producer organisations, private sector and self-help groups (SHGs), combined with the PDS, can be gendered to be an asset in the COVID-19 emergency. For example, countries like the United States have seen milk and vegetables ploughed into rivers and the ground (Jeffrey and Newburger 2020). In contrast, in India, the National Dairy Development Board reports liquid milk sales showing signs of steady recovery, based on policy and proactive support from the central and state governments and on measures taken by producer-centric organisations to address supply chain challenges, whereas private sector sales have shown greater disruption (NDDB 2020).

Women empowerment will also enable significant changes in consumer behaviour, including how food is allocated within the household. In times of scarcity, in patriarchal societies, women and children often go hungry and become food-insecure. Prolonged periods of food insecurity translate into long-lasting nutritional deficiencies and poor health. Through several initiatives, this collective change in consumer behaviour can foster sustainable food systems that, at the same time, enhance nutrition security for all.

Strengthening the SHGs: India's flagship programme, the National Rural Livelihood Mission (NRLM), created in 2010 to reduce poverty by mobilising poor rural women in SHGs and building community institutions, is addressing COVID-19 challenges.

Some 20,000 SHGs across 27 Indian states are creating employment for women, for example, to produce millions of masks and thousands of litres of sanitiser and handwashing liquid.

> Since production is decentralised, these items have reached widely dispersed populations without the need for complex logistics and transportation. With huge numbers of informal workers losing their livelihoods during the lockdown and food supply chains getting disrupted in some areas, SHGs have set up over 10,000 community kitchens across to feed stranded workers, the poor, and the vulnerable. (World Bank 2020)

For example, the Kudumbashree network in Kerala, of nearly 4.4 million women members, has delivered nutritious, cooked meals as needed, operating 1,300 kitchens across the state, in addition to providing food to the bedridden and those in quarantine (World Bank 2020). Kudumbashree is also spearheading the government's Break the Chain campaign using mobile phones, posters, and weekly meetings to raise awareness about handwashing and social distancing. In one of India's poorest states, Bihar, the state's SHG platform JEEVIKA is using leaflets, phone messaging, songs, and videos to communicate about handwashing, quarantine, and self-isolation. Additionally, women-run help desks are delivering needed food supplies to the elderly and the quarantined. In Jharkhand, women are running a dedicated helpline for migrants returning and other vulnerable families. "Women at the centre of development have been an important story in South Asia. In these extraordinary times … women's groups are playing a critical role" (World Bank 2020). Most compelling is the vast literature that suggests that the transfers to women-led SHGs and other measures to empower women have great health multiplier effects.

IT in pandemic management: Information technology (IT) is already profoundly impacting India's ability to respond to the COVID-19 pandemic. IT is particularly important for real-time contact tracing and monitoring of the emergence of hotspots and can play an even more significant role in managing relief measures. As COVID-19 hotspots appear and abate, relief measures can correspondingly be ramped up or dialled down, as necessary. IT will remain vital in targeting health and financial aid.

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Public investment in healthcare: Even in normal times, medical expenditures push people into debt and poverty. Over 80% of Indians have no access to health coverage. Despite a health infrastructure that reaches out to primary and community health centres in rural areas, reliance on private health providers is common. Inadequate staffing, accountability, and quality are some of the reasons why private hospitals are preferred. Inpatient expenditures (outside of childbirth) in private hospitals are six to eight times more than in public hospitals. To improve healthcare in the post-COVID-19 environment, more public–private partnerships are needed. Kerala is one state with substantial public investment in the healthcare industry, in addition to crowding-in private health investment.

Concluding Thoughts

It is time for significant change. India is responding to the challenge in several ways; but in the post-COVID-19 normal, by adopting "zero hunger" as an explicit goal, prospects could be a lot better. Comfortable foodgrain stocks and a favourable demographic structure have aided India's ability to cope with the crisis, but other challenges are daunting. They include high undernutrition prevalence, growing incidence of non-communicable diseases, high population densities, vulnerable migrant labour and daily wage earners, low status of women, low participation rates and lower wages of women in the labour force, and poor health infrastructure.

Most immediately, India needs to prepare an exit strategy from the lockdown. While economic activity should be resumed and supply chains restored and improved, special attention should be paid to protecting income, livelihoods, and food security amongst the vulnerable groups. Removing supply bottlenecks and providing demand stimulus (via incomes) could work in tandem with restoring the economy.

Understanding pattern of spread of the infection, identifying virus-free districts, and developing cost-effective testing will lessen the risk of exposure on lifting the lockdown. It will be important to encourage employers to practise socially responsible protocols for worker safety: providing workers with masks, soaps, sanitisers, and clean water, as well as facilitating social distancing. The stigma against COVID-19 needs to be channelled into a constructive way forward. Awareness that most infected people could be cured, if treated in time, would reduce the stigma. The COVID-19 outbreak has made India realise the fragility of its public health infrastructure. India needs to increase and strengthen investments in public hospitals, vaccines, and pharmaceuticals. India has also realised the critical role of epidemiological studies in understanding the spread of the disease. Policymakers should take this opportunity to strengthen its healthcare and food and nutrition research capacity.

When social distancing is so important, policies should also explore the potential of IT for activities ranging from distant learning, implementation of government schemes in efficient, transparent, and accountable manners, to the securing of the social safety nets.

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Mumbai's Struggles with Public Health Crises

From Plague to COVID-19

RAVI DUGGAL

The economic catastrophe precipitated by the COVID-19 pandemic and the response of the dismal public health system has actually led to the heightening of the public health crisis. If the migration of workers from cities is not stopped through appropriate economic support measures, the public health crises will worsen because most migrants are returning to states that have very poor healthcare systems with limited capacities to deal with such crises. This pandemic also offers a political opportunity for governments to focus on strengthening the primary healthcare and public health systems through bold experimentation and strategies.

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Pandemics are not new to Mumbai, the financial and commercial capital of India. The 1896–97 bubonic plague, which originated from China and Hong Kong and came to Bombay (now Mumbai) via ships, claimed over 10,000 lives in Bombay in the first six months and by 1905 had claimed more than 10 lakh lives across India. Mill workers constituted 80,000 of the total 8,50,000 population of the city. Forced to face harassment under plague control measures, which involved sanitisation, quarantine, and separation of sick family members in poor conditions and even destruction of their dwellings, they resorted to striking a number of times in early 1897. Within three to four months of the start of the plague 4 lakh people, including many mill workers, fled from Bombay to their villages, pushing the city into a severe economic crises (Sarkar 2014).

While mills did not shut down completely, they had to reduce production drastically as labour supply dwindled. The mill owners' association under the leadership of Jamsetji Tata attempted to break the workers' unity by importing labour from North India, which was reeling under the famine of 1896, but soon realised that this would not work. Many mill owners thus adopted the strategy suggested by Nowrosjee Wadia of building a bond between the employer and the employed through provision of housing, and better working and living conditions (Sarkar 2014). This brought back workers to Bombay even though the plague had become endemic and only disappeared during World War I.

However, towards the end of the war, the Spanish Flu or Bombay Fever (H1N1 virus) hit the city in June 1918 carried by the returning troops from Europe. By August, it had spread across India, killing an estimated 14–17 million people, about 5% of the country's population. "In Mumbai, almost seven-and-a-half times as many lower-caste Indians died as compared to their British counterparts—61.6 per thousand versus 8.3 per thousand," and in between were the Muslims at 19.2, other caste Hindus at 18.9, Indian Christians at 18.4, Jews at 14.8, Eurasians at 11.9 and Parsees at 9.0 per 1,000 (Chhun 2020). The Bombay Presidency was the worst affected with a mortality rate of 54.9 per 1,000 and in the spread across the country the railways played a prominent role (Chandra and Kassens-Noor 2014). So, clearly, travel played an important role in the spread of the disease and the larger impact was on the poor and socially unprivileged sections of the population.

In more recent times, the severe acute respiratory syndrome (SARS) in 2003 and H1N1 from 2009 onwards reveal similar trajectories of how the pandemic played out and became endemic. While the spread of SARS 2003 in India was insignificant, the H1N1 attack was quite severe with 20,604 cases and 1,763 deaths in 2010, having a case fatality rate of 8.55%. Maharashtra accounted for one-third of the cases and 38% of deaths with a case fatality of 9.8%. H1N1 is now endemic and strikes the country each year (Table 1).

Maharashtra and within it Mumbai bears a disproportionate burden of cases and deaths in India for H1N1 and this probably has indications of what we should be expecting from the COVID-19 attack.

COVID-19 began in China in December 2019 and the whole world was aware of it, though the World Health Organization's (WHO) response to declare a public health emergency of international concern was delayed to 30 January 2020. This was

Table 1: H1N1 Cases and Deaths in India and Maharashtra 2010–20

	India		Maharashtra	
Year	Cases	Deaths	Cases	Deaths
2010	20,604	1,763	6,814	669
2011	603	75	26	5
2012	5,044	405	1,551	135
2013	5,253	699	643	140
2014	937	218	115	43
2015	42,592	2,990	8,583	965
2016	1,786	263	82	26
2017	38,811	2,270	6,144	778
2018	15,266	1,128	2,593	461
2019	28,798	1,218	2,287	246
2020 (till 23 February)	1,132	18	42	0

Source: https://ncdc.gov.in/index4.php?lang=1&level=0&linkid=119&lid=276.

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despite WHO China office having information on the China outbreak on 31 December 2019. A few countries like Singapore, Taiwan and South Korea responded fairly quickly using their historical experience and learnings from the SARS and H1N1 pandemics. Singapore was well-prepared for such a pandemic falling back on mechanisms that it had put in place since SARS 2003, like an interdepartmental task force, aggressive testing, tracing contacts, and strict quarantine. It reached a very high level of testing of about 42 persons per 1,000 very quickly and this helped undertake swift surveillance, identification, and treatment. This was done in a coordinated and integrated manner, and not as a sequential trial and error process.

South Korea, Hong Kong and Taiwan also learnt from this and did a better job of containment. Further, the robust public healthcare system with strong primary healthcare, which was well resourced and provided for, was able to respond swiftly and effectively. These countries did not have to deal with deficiencies and scramble for resources like personal protective equipment, masks, ventilators, testing kits, laboratories, etc. Singapore's policy ensures that all employees quarantined would be given that period as paid medical leave while the self-employed are paid $SG 100 as daily allowance because of stoppage of economic activity (Hsu and Tan 2020). Despite being a police state, this country's response was dignified and humane.

Costly Failures

In India, Kerala responded as swiftly and effectively as Singapore and South Korea and hence was able to contain the spread quickly and with low fatality. Its well-developed primary healthcare system and the coordinated efforts of various government agencies helped contain the spread of infections. Similarly, Goa, Puducherry, Sikkim, Mizoram and other north-eastern states have controlled and contained the COVID-19 attack because of their well-developed primary healthcare systems. Apart from this, what should be noted is that these states spend more than twice the national per capita average expenditure on public health.

Had other states in India similarly invested in a robust and comprehensive primary healthcare system, perhaps highly infected clusters could have been identified for containment and locked down with appropriate planning and support for testing, contact tracing, and treatment, and access to essential supplies. However, India has failed on all these fronts: a poor public healthcare system and its incapacity to deal with such crises, the risk of a very large private health sector that is unregulated and profit-oriented, poor coordination across agencies, delayed responses, etc.

The lockdown may turn out to be a boon of sorts for mitigating the public health crisis, but it has precipitated an economic catastrophe that, given the predominant informal sector of the economy, has actually led to the heightening of the public health crisis. If the migration is not stopped through appropriate economic support measures, the public health crisis would be cataclysmic because most migrants are returning to states that have very poor healthcare systems with limited capacities to deal with such crises. What is critical is that India's response is sequential, similar to firefighting, and not integrated, and this may contribute to spikes in the numbers of infected in the coming days. Herd immunity could help, but this debate is still unresolved.

Back-breaking Burden

Maharashtra is the most drastically affected state in the country, with over 35,058 cases out of over 1,00,000 in the entire country as on 18 May 2020. This equals to over one-third of the caseload for a population that is 9.5% as a proportion to that of the country as a whole. The deaths are even higher in Maharashtra—1,249 out of a national total of 3,081 as on 18 May—with the proportionate burden being as much as 40%. And within Maharashtra, Mumbai is the main hotspot accounting for a huge burden of 61% of cases and deaths for a population that is proportionately 14% of the state population. In fact, Mumbai accounts for as much as 21% of the cases nationally and 25% of the deaths. For the city, this is an unprecedented public health disaster with the infection spreading into the poorer sections living in slums and chawls (Pinto 2020). Clearly, Mumbai is witnessing a community spread of the infection and in the coming weeks the number of cases and deaths are going to peak. If we have to reach the level of Singapore and South Korea in testing, we need 42 tests per 1,000 (Hasell et al 2020), and this means Maharashtra should have tested 54 lakh persons by now instead of the 2.73 lakh persons (2.1 per 1,000) tested so far. Even in Mumbai, which has tested at a much higher rate of 7 per 1,000 so far, the number of tests should have been over 8 lakhs at the time of writing.

Since mid-April 2020, with a rate of 3.7 per 1,000, Mumbai was already testing much more aggressively than other states and cities. After crossing 500 deaths, Maharashtra should have tested at least 1% of the population every day or 13 lakh tests every day if detection was to be effective. Globally, we see that countries that resorted to aggressive testing and contact tracing early enough and also provided economic support to those whose livelihoods got affected were able to contain the spread more quickly (Anderson et al 2020).

The continued spike of cases seen in Mumbai is attributed to the relatively

Corrigendum

This is in reference to the advertisement published in issue dated 14 March 2020. Due to the inconvenience caused by the lockdown, the last date for receipt of applications for faculty recruitment at **CDS, Thiruvananthapuram** has been extended to Friday, **31 July 2020**.

more aggressive testing. While the city should soon see a flattening of the curve, other states, especially in central and eastern India where most migrants are returning, will witness huge spikes as they increase their testing and may even experience a higher death rate because of their poor healthcare systems. The larger problem in Mumbai is the poor capacity of the public health system. While Mumbai may have adequate number of beds, both public and private medical institutions taken together, the deficits in human resources and supplies and very low budgetary allocations for healthcare are major concerns and limit the public healthcare system's response to the COVID-19 onslaught. Until 1991, the expenditure on health by the Brihanmumbai Municipal Corporation (BMC) was between 25% and 30% of its budget. At present, it is down to 10% to 12% of its budget (Duggal 2016). This is reflected in the poor capacity of the BMC health infrastructure to deal with normal healthcare issues, let alone a public health crisis. More alarmingly, routine healthcare in both outpatient departments (OPDs) and hospitalisations are also adversely affected and many cases of denial of access are reported in the media every day. Unlike the real-time data being provided for COVID-19 cases and deaths, the data for non-COVID-19 events is not available with only anecdotal reporting providing evidence for reductions in access to healthcare. The private health sector response is inadequate—most general practice clinics are closed and nursing homes and hospitals if open are unwilling to take any risk and are rejecting patients, especially the poor.

The middle classes and the rich do have some access to private healthcare facilities but there have been frequent reports of exorbitant charges by private hospitals. There has been some discussion and debate of the state taking over the larger private hospitals, especially those registered as charitable trusts, but the political class and decision-makers in the government have not shown the courage to act accordingly. This is an emergency, and, in the interest of the public, the state has a constitutional right to take over private healthcare facilities and call upon private doctors to engage in public service. The state and the BMC have failed to do so.

However, the larger disaster is the failure to respond to the economic disaster that the lockdown precipitated. With complete closure of economic activities, except essential products and services, the bottom half to two-thirds of the working classes, especially those dependent on daily wages or daily earnings as small vendors or businesses, have been hit very hard. The long lockdown has decimated their little savings and pushed them into an undignified position of dependency on charity and/or being forced to migrate back to their home states. This suffering and displacement has put them at high risk of getting infected as they live in cramped and crowded conditions, and those who decided to migrate have carried the risk of transmitting the infection to other geographies. In fact, as the lockdown got extended, the risk and transmission of infections saw rapid growth (Table 2).

The lockdown period that ended on 17 May saw the maximum addition of cases in Mumbai—on 4 May, Mumbai had 9,000 cases, but on 17 May, this had increased to a whopping 20,150 cases and most of this increase was in the slums and other areas where the poor live. This huge increase coupled with the humanitarian crisis due to loss of livelihoods and no access to food created further fears. There was pressure to facilitate migration and the state was forced to give in.

The lockdown and the humanitarian crisis it has precipitated was due to a poor strategy. The planning should have been backed by better understanding of and insight into the ground realities and the global experience. State agencies completely failed the people and created a humanitarian crisis of unprecedented proportions. The civil society response—peoples' movements and collectives, trade unions, non-governmental organisations, religious groups, a few corporate foundations and even individuals and resident groups all pitched in with collecting food and rations, cooked meals, and other essentials like soaps and masks, and distributed them widely and prevented catastrophic hunger deaths. Tax resources from the centre have not reached the states and the latter's own taxes like alcohol excise duties, value added tax and fuel taxes, amongst others, have reduced substantially due to the lockdown. The states are running into a fiscal crisis and many may not be able to pay salaries in the coming months, let alone provide benefits to those economically battered.

The Atmanirbhar Bharat Abhiyaan announced by the Prime Minister has no direct benefits for the severely affected people. The vast majority's survival is threatened and all the government responds with is the sorting out of liquidity matters for businesses and financial markets, and calls for self-reliance. If each citizen must become self-reliant, where is the need to pay taxes, or for that matter, the needs for various economic and social sector departments of the government?

Moving Forward

The situation in Mumbai, Maharashtra, and elsewhere in the country will be getting worse for at least the next one month before we may see some slowdown. If the lockdown continues in its current avatar, the humanitarian crisis will worsen. As regards the public health crisis, it is going to take its course like H1N1 discussed above or like other

Table 2: Increase in COVID-19 Cases

Ward	Cases on 14 April	Cases on 14 May	Increase in Folds
A	39	326	8
B	46	160	3.5
C	13	187	14
D	130	614	4.7
E	135	1,085	8
F/S	41	574	14
F/N	58	1,082	18.7
G/N	97	1,362	14
G/S	360	1,232	3.4
L	85	1,024	12
M/E	95	665	7
M/W	62	546	8.8
N	38	419	11
S	67	488	7.2
T	11	292	26.5
H/E	96	902	9.3
H/W	36	316	8.7
K/E	90	730	8.1
K/W	88	1,026	11.7
P/S	34	276	8.1
P/N	57	352	6.1
R/S	36	307	8.5
R/C	26	242	9.3
R/N	13	149	11.5

Source: Mid Day, 16 May 2020, page 2.

communicable diseases such as tuberculosis, malaria, pneumonia, diahorreal diseases, etc, which have much higher prevalence and mortality across the country.

This is a political opportunity for the governments to focus on strengthening the primary healthcare and the public health systems. The health and wellness centres need immediate and rapid expansion, as demonstrated by Kerala and Tamil Nadu, with doubling of budgetary commitments for them as also the district hospitals being upgraded to teaching hospitals with tax funding and not public–private partnerships as advocated by the NITI Aayog. If needed as a measure of transition, private hospitals could be taken over by the states until their own facilities are made robust enough for delivering universal access to healthcare. This transformation of the public health system will make us better prepared to handle the present and any future public health crises that may emerge. It is good to note that in her fifth tranche on the fiscal package announcement, the finance minister mentioned the strengthening of health and wellness centres and providing district hospitals with infectious disease units and a laboratory for every block. In Mumbai, dispensaries and urban health posts need to be integrated as health and wellness centres, and the hospitals need to bring in human resources and have their infrastructure strengthened as per the Indian Public Health Standards at the minimum. Testing and contact tracing need to be ramped up, especially in the red zones, and a scientifically designed random sample survey across the city and state to test for prevalence needs to be done. Besides, there is no need to convert existing hospitals into COVID-19 hospitals. Sections should be created for COVID-19 and non-COVID-19 areas with adequate precautions, and for asymptomatic cases quarantine should be provided in non-health institutions. Also, non-COVID-19 care and treatment should not be affected. Private providers should be inducted for public duty to ease the human resource deficit situation. And of course, all COVID-19 testing and treatment, whether in public or private, should be free so that already stressed households are not further burdened, and this would mean substantial increases in budgetary allocations for health and not a token amount of ₹15,000 crore for the entire country as announced by the Prime Minister.

In hotspot areas, strategically defined lockdowns may continue, but with a more humane approach and not by instilling fear.

Conclusion

For example, the state could promise an assured minimum wage if there is loss of livelihood, and coverage of all workers, including informal sector and self-employed, under schemes like the Employees State Insurance Scheme (ESIS) and Employees Provident Fund and National Pension Scheme.

Hence, this is also an opportunity to move towards universal social security wherein livelihoods and social wages of people are protected when a crisis like this strikes.

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Coerced Movements and the Unravelling of a 'People'

SUDEEP BASU, SARASIJ MAJUMDER

There is an increasing acknowledgement of the intertwining nature of voluntary and forced migration. Also, there is an increase in xenophobic and ethnic tensions accompanied by the rise of populist politics, as migrants get labelled as others and outsiders. There is a need to take cognisance of the coevalness of deterritorialisation, capital accumulation and the pronounced turn to the ethnic in the conceiving of sociopolitical identities. This can be a step towards analysing who we are as a collective, our differences, socialities and solidarities in these fraught times.

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With directed focus of social science and policy thinking on the human experience of displacement and uneven development, especially since the last two decades of the 20th century, there has been an increasing acknowledgement of the intertwining nature of voluntary and forced migration. Migration has always posed challenges for governance and the state that seek uniformity of cultures and practices among its population. Yet, migration, voluntary or forced, is a recurrent feature of capitalism, along with its unevenness, and the dispossessions and displacements that it engenders.

The Global Compact for Safe, Orderly and Regular Migration, 2016 called for greater policing of borders and managing population flows in response to globalisation. Such "safe, orderly and regular" migration is to be materialised through creating sanctuaries, safe havens, border zones, safe corridors, and graded system of recruitment into labour regimes the world over. This compact clearly intended to see migration as an inexorable force and a necessary evil that has to be harnessed well to generate value and wealth for states, citizens, and corporations. This leads us to rethink migration as being at once connected with the destinies of people, collective imaginations and the material interests.

Heightened Anxieties

Mobile populations have unintentionally become a cause of heightened xenophobic and ethnic tensions, accompanied by the rise of populist politics and nativist upsurge replete with sentiments of otherness, when the "alien outsiders" are seen as "stealing resource and occupying our territories, violating our women and contaminating our moral order." Boundaries and camps, such as the imagery of a "Fortress Europe" or Guantanamo Bay detention camps are meant to check this flow, and bureaucracies are being deployed to identify foreigners and undocumented migrants, rendering their lives precarious. Yet, these boundaries are continually traversed, creating ever greater anxiety among hosts, to mitigate which they recast their ties to blood, soil, race and religion.

How do we make sense of this renewed affective turn to the ethnos in determining supra-individual identity? Is such a turn due to suppressed communalism or longing for a communitarian life that various discourses of nationalism wished would go away with the emergence of a so-called rational secular order? Or is it an outcome of the dynamics of global capitalism and its complicities with the governmentalisation of the state? Addressing these questions and concerns requires exploration into the complex connections between voluntary migration, popular sentiments, threat of ethnic cleansing, expulsions, xenophobia and forced migration.

Finding ourselves at the cusp of global restructuring under late capitalism and with the accompanying societal conflicts, we need to recognise the coevalness of deterritorialisation, capital accumulation and ethnic turns in the conception of political processes. It is important while drawing out implications for our inherited collectives as well as questions about who we are, our locations, our precarity, socialities and solidarities. Most explanations of the migration phenomenon tend to rely on identity and cultural logics to the neglect of the responsibility of the states and global dynamics of capital. Recognising the uneven geographies of capital is also crucial to make sense of ethnicisation and the politics of redistribution and justice.

In the face of massive dislocations of people and cultures, flows of populations are a result of a concatenation of forces, both human and non-human. We argue that the return of the ethnos has to be seen in terms of this emergence of transnational subjectivities formed within an uneven unfolding of capitalist development. A transnational subject imagines its future in a larger global and national space, but, at the same time,

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such aspirations and hopes are tempered by anxieties of demographic marginalisation and a sense of loss that results in assertion of the ethnos.

Situating Mobile Subjects

Given the triumph of the economic over the anthropos in the governance strategies of the states, it is important to consider three things in order to understand migration. First, we need to understand the spatial dynamics of capitalism that creates zones in which investments and wealth are concentrated, leaving certain places out of the investment circuit. The latter become key sources for cheap labour and resources. Second, the movement and massive flows of people that an uneven development generates prompt states and bureaucracies to control the movements in ways that are beneficial for their economies. While direct control may include resettlements and construction of camps, calculated disregard for shadow economies and informalities spawned by migrations are indirect ways of responding to population movements. Third, the embedded character of governance structures, bureaucracies and political parties in regional and local politics have an impact on the responses to migrations, both outbound and inbound.

In light of these foregoing features, governing migrations means states tend to speak with a forked tongue. Divisive political parties in this scenario draw mileage, both out of migrations and xenophobic responses towards minorities and migrants. Divisive politics capitalise on the reassertion of ethnos by the majority, in response to the presence of people of different religions or ethnicities. Such sentiments and feelings, in turn, feed into the overall governing strategies of the state run by populist regimes. The common thread running through the three aspects of migration and its consequences, as they unfold within a deeply uneven development of capitalism, is the central role played by imagination and aspiration that motivates people to cross boundaries but also pushes them to build boundaries.

The emergent logic of governance in the context of migration, we argue, is flexible containment of population. Aihwa Ong's (1999) "flexible citizenship" demonstrates the tendency of the state to invoke and use the homology of place-territory-belonging in creative and and strategic ways to favour capitalist developments, and, at other times, to enkindle populist nationalist feelings, generating and restricting flows of coerced and voluntary migrations. We identify the two logics in the emergent responses to migration. One is Ong's neo-liberal governance that prioritises economy over anthropos, and the other is the populist logic that hierarchises or divides the population on racial and ethnic lines to institutionalise a graded arrangement of citizenship using fear and the withholding of rights. These two sometimes coalesce to produce massive transformation of space, place and territory, generating developments and unevenness that attract migration flows. Often, they part ways. This produces responses that can have a gamut of effects on legal and illegal immigrant subjects.

Pedagogy of what we would like to call coerced movements, took root in the global North in the aftermath of World War II as "refugee studies." Modern state formation in the global South, however, was accompanied by large-scale population displacements with large sections of the population becoming refugees, stateless or internally displaced. The partition of India, Bangladesh war, Tibetan refugee flows, and minority exodus of Rohingyas from Myanmar were a fallout of decolonisation in the wider region. When hordes of people moved either to a new nation state or the global North, as indeed they did, "it is the journey that made them" (invoking David Turton's [1979] evocative statement, while referring to the Mursi tribe).

They were at the outset unnameable, faceless, illegible, apparently stripped of their culture, for they were individualised in accordance with Western norms. Gradually, movements in the form of border crossing became marked, when citizenship or civic membership began to be constructed around the axis of race, ethnicity and gender, among other markers. Documenting who are these people, who should be taken in and who should be shunned or are unworthy of formal membership, was part of the nation state's politics of cultural difference. An emerging nation's narrative founded on large-scale cataclysmic migratory events like the partition of the Indian subcontinent in 1947 (creation of India and Pakistan) and then in 1971 (creation of Bangladesh), remained marked by tales of inclusion as a citizen, as well as those tales that provide glimpses into motivated exclusions, segregation, xenophobia, alienation, disentitlements of ethnic/religious minorities. Such migrations in South Asia are occurring at the behest of nation formation.

Such spectacular and critical events constitute subjectivities of citizens and non-citizens alike, but much of mundane everyday movement of labour and goods across the border also gives away a false sense of peace, harmony and understanding. These are actually sites for identity formation that are fluid in nature. Challenges for those crossing the border, but not receiving formal legal status, appear in the form of a hierarchy of belonging that prevents access of opportunity to refugee/migrant communities. The selective admission of the displaced based on their social location, alongside the visibility of migrants without documents points to the double nature of the group of coerced migrants as a people with a name and also without one (Marchart 2005).

'People on the Move'

The study of migration orders is overwhelmed by the statist model of reasoning, which presumes a homology between people, territory and modes of belonging, rooted in the Western, albeit European, context. In contrast, one has to take account of the growing dispersion, decentring and interconnectedness reflected in anthropology's rising concern with ethnicities and identities, which challenges the enclosed, circumscribed vision of society and culture. Anthropologising of this kind has tended to underplay the social and political in reconfiguring the concept of society/assemblages. The idea of a "deterritorialised nation-state" (Basch et al 1994) in which people may be "anywhere in the world and still

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not live outside the state," contrasts with the concept of diaspora (movement, hybridity and return), which partakes of both "deterritorialisation," and construction of "hyperspaces" and "reterritorialisation" processes at any given moment in time.

What complicates the situation further is when "people are on the move," both within and outside national borders, and the severe challenges that they face when they locate to new surroundings in the midst of new hosts. How can the "migrant other" be included to become citizens with rights and responsibilities, when subjected to historically inflicted upon indignities and other exclusionary practices of the state and society? The "other," as we see it, could be internal migrants, immigrants and their descendants, ethnic minorities, women, backward castes and indigenous inhabitants of a region.

What are the limits of popular forms of justice in the time of rampant populism and majoritarian politics that seek to keep the marginalised other at bay? Can institutions deal with and share the burden of clandestine migration that stares at us, owing to growing economic inequality and the need for migrant labour in developed countries? Intriguingly, sociology, and social sciences in general, in its quest to establish itself as a positivist science of the social, barely touched upon concepts such as migrants, multitude and masses, treating them as an excess or anathema.

This neglect for which sociology, in particular, has often been pejoratively dubbed as a "bourgeoisie science," has had profound consequences for the politics of our times, rendering the ground on which politics is enacted increasingly incomprehensible. In this conjuncture, the figure of the immigrant, and the institutions through which immigrant lives are scripted, have to be laid bare. It requires shifting our analytical focus away from structure and agency dichotomy to that of the people and masses, as a "paramount reality," which in Laclauian terms are "empty signifiers" or "floating signifiers" (Laclau 2005).

What is counted as voluntariness regarding one set of people's mobile choices at a particular place, leads to forced movement of another set of people who are regarded as illegals, undocumented migrants, through a carefully crafted immigrant policy and citizenship rules designed to exclude. This visible coerced mobility conjures up an unstable, shifting category of a "people on the move" embedded within a sociohistorical context, and also serves as an index to the emergence of an entire category of non-citizens, such as stateless, detainees, undocumented migrants, and refugees within a nationalist/citizenship regime.

People or peoplehood, as Wallerstein (1987: 387) states, is a "major institutional construct of historical capitalism." Coming into being of the people, as he goes on to say "is not a stable social reality but a complex, clay-like historical product of the capitalist world economy through which antagonistic forces struggle with each other." It denotes a category that is full in itself, but, in its seeming completeness, it excludes from within while searching for anchors and boundaries. More than representing something else, it lends itself to representations by other ideologies and groups, opening itself up to appropriations and reappropriations.

Immigrant Stakes

What is at stake is how, in a general way, citizenship as an institution can provide political cohesion and social integration. Equally, an empirical question about how far people belonging to distinct groups of the population actually achieve substantial citizenship and equal chances of participation in various areas of social life has to thought through. Tightening of border controls witnessed in the European Union in the wake of "massive and mixed flows" from the East has only exacerbated the problem of illegal entry and undocumented migrants (de Genova 2002). The exercise of such controls has met with resistance from within European states, which have a flourishing informal sector, reliant on migrant labour.

The technique of exporting border control duties to countries in eastern Europe through the creation of "buffer zones" highlights the limits to postnational aspirations or a cosmopolitan, supranational entity. Exclusion or inclusion of migrants who make it across the border and their status and belonging in this regard is dependent on radically different rules of citizenship, nationality and regulatory mechanisms. The habitus of individuals on the move is constantly under flux. They are further inflected by bureaucracies, communities and neighbourhoods where they come to reside, producing ever new mobile subjects.

What is useful in the Laclauian formulation is the "performative" dimension of the people (Laclau 2005). This analytic move gives people an ontological status that cannot be captured in the categories, such as class or crowd. But this move also presents a problem. The uncontrollable or performative dimension of the "people as one" category, one that defies normative controls and its intimations to inclusivity, may become aligned to power structures that split the people further and create the other of the immigrant/refugee/non-citizen.

An adequate critique of the idea of the people is possible through the foregrounding of populism, which lies at the heart of the sociopolitical management of the unprecedented migration crisis the world over. Populism prevents people from standing against state power, where social power in the general sense masquerades as resistance. In that sense, populism does not create the democratic impulse that Laclau envisages. Rather, the "empty signifier" of the people gets a label, an ethnic or ethno-religious one, which begins to ethnicise all that comes in touch with it.

The creation of stateless people is an outcome of the intersection between citizenship laws based on birth, descent, registration, and naturalisation, and critical events such as economic migration, conflict-induced displacements, political turmoils, and disasters, which have repercussions across borders. The administrative exercise monitored by the Supreme Court of illegal immigrant identification in Assam for updating the National Register of Citizens (NRC) against the backdrop of the Assam Accord in 1985 has raised the bogey of determining the citizenship status based

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on *jus sanguinis* (right of blood or citizenship is determined or acquired by the nationality or ethnicity of one or both parents) as opposed to *jus soli* (right of soil or citizenship of a person solely based on the place of birth).

On 29 May 2019, Mohammad Sanaullah's (a former Indian army man and a Kargil war veteran) fate was sealed, well almost, for he walked into the detention centre in Goalpara, Assam, "carrying the tag of an illegal foreigner" in the wake of the implementation of the NRC. After being released from the detention centre on 8 June 2019, he said,

> Entering through the prison gate, I cried and cried. I asked myself what sin have I committed that after serving my motherland for three decades, including at the LoC in Kupwara, I am being detained like a foreigner. (Saha 2019)

He continues,

> I have served for 30 years in the Army. I have been posted in Madhya Pradesh, Maharashtra, Rajasthan, Delhi, Punjab, Jammu and Kashmir, Andhra Pradesh, Assam and Manipur. I have defended my country standing bravely at the border. I love my country. I am an Indian and I am sure justice will be done in my case. (Saha 2019)

Such personal narratives of uncertainty and anguish around one's citizenship status are one such instance of the proliferation of displacements the world over and its life-altering ramifications for ordinary citizens and non-citizens alike. Threatening to render some people de facto stateless, the NRC update on coupled with the Citizenship (Amendment) Bill, 2019 threatens to divide and exclude the people on the basis of religion and ethnicity. Therefore, "people" is always the "other of power structures animated by an antagonistic struggle" (Zizek 2006: 553). The formation of "people" is dependent on its excesses and its ability to escape epistemological domination, albeit for a short duration, only to find new alignments with social and political formations. "People" can also hold the possibility for individuals to see themselves in new ways, erasing differences. In a different context, the white working class does not see class representing it because then it has to hold the hands of the blacks. Rather, it will join the billionaire's club celebrating rugged individualism. On the other hand, class has to ground itself in cultural practices, rituals and aesthetics, to ethically bind individuals identifying with it.

Coerced Migration and Populism

With democratic upsurge, populism has the potential to redefine the nature of social power in the ontological sense. Right- and left-wing movements adhering to populist reason work upon the supposed victimisation of the popular majority: the people. There is an absence of a precise formulation of who these people are. What is at stake in building institutions of accountability and governability is who matters socially, economically and politically. But, the way this politics is shaped in deepening democracies is as much about history as it is about memory rehearsed through rites and rituals, both sacred and profane, reminding people about their hoary past, lost causes, injuries, traumas, indignities, persecutions by other peoples and other races coming from distant lands to settle.

The past time is no longer homogeneous. It is divided up, fragmented, made conscious of, which has the effect of producing a common consciousness of victimhood only to set itself up against a common enemy—an elite, the pariah, the barbarians, the terrorist or the immigrant. The challenge that immigrants and the institution of immigration poses is the question of inclusion, legal and otherwise, of migrants into their adopted lands and their social and political linkages with their societies of origin. While there is the process of the decoupling of nation, territory and citizenship related to migration, it has not so far supplanted the territorially bounded exercise of citizenship rights and participation in the political process. There has also been an expansion of the sphere of national politics to include those in the diaspora by involving transnational institutions and actors in the politics of the homeland. In this attempt to shed light on ever-new groups, populism makes visible hitherto neglected, disempowered groups.

What gives rise to populist politics is the spectre of migration that has engulfed the world. Governing immigration entails coming to grips with the questions of "who we are" as a collective, as a nation and the construction of difference, articulated through the prism of language and biology (Wiebe 2012). The emergence of a global compact that blurs the migrant and coerced migrant distinction also normalises ways of "governing at a distance" of the irregular and clandestine migration flows, encompassed within the global regime of capital. In a situation where illegal migration is posed as a security threat, civic and state institutions offering a graded system of conferment of rights/entitlements and hierarchies of belonging enhance the vulnerability of the non-citizen migrant. The figure of an embodied migrant, immanent in national and post-national processes, makes people's struggles and their nativist burdens ever more difficult to transcend in the world of fluxes and flows.

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Taxation in the Times of COVID-19

KAJOL A PUNJABI

The pandemic spreading across the world has resulted in a rising demand for immediate tax relief measures worldwide. The taxpayers in India too expected that some concessions would be granted to them while paying taxes. While analysing the measures to provide tax relief by the Government of India, it may be helpful to view them in juxtaposition with the steps taken by other countries. There are some issues that are peculiar to India, and this calls for the need to adopt a holistic approach and devise a strategic plan in respect of direct tax laws.

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The announcement of COVID-19 as a pandemic by the World Health Organization and the consequences that ensued are known to all. However, this has also resulted in a rising demand for immediate tax relief measures worldwide. The taxpayers in India too expected that some concessions would be granted to them while paying taxes in the midst of this disruption in the business cycle. Some aspects of direct taxation, which may have been overlooked or may have not been considered by the policymakers, are highlighted. It may be helpful to view the measures taken by the Government of India (GOI) in juxtaposition with the steps taken by other tax jurisdictions.

The Ordinance

The President promulgated the Taxation and Other Laws (Relaxation of Certain Provisions) Ordinance, 2020 (hereinafter referred to as "the ordinance") on 31 March 2020 in view of the pandemic. It makes provisions for the Income Tax Act, 1961 (hereinafter referred to as "the IT Act") and other acts that are collectively referred to as "specified acts" in the ordinance. The major provisions for direct taxes are analysed.

Section 3 of the ordinance lays down that any action in any proceeding or any compliance or payment of any amount towards tax or levy has to be completed or made between 20 March 2020 and 29 June 2020 or such other date after 29 June 2020 as the central government may, by notification, specify in this behalf. The same stands extended to 30 June 2020 or such other date after 30 June 2020, as the central government may specify. The rate of interest payable, if any, in respect of such amount for the period of delay has been reduced to three–fourth percent of the usual rate of interest.[1] In addition to that, the donation towards Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES) fund has been exempted under Section 80G of the IT Act.

Such an attempt on the part of the government is a half-hearted attempt, because it does not provide any relief at all to the taxpayers. Considering that the businesses have been heavily disrupted in view of the pandemic, there are no measures to provide any tax breaks. Employers have been advised by the GOI to pay their employees as usual without any deduction in pay. They are also expected to pay the government as usual without any tax break. However, businesses would find it rather difficult to continue as a going concern in such circumstances. Practically, these businesses will face a cash crunch, and hence, it would be impossible to meet all demands. The question which arises is that: Where would they pay from in these circumstances?

Although the government has extended a few deadlines for filing revised and belated returns and has reduced the rate of interest for delayed payment, it has done nothing to take the burden off the shoulders of the taxpayers or even to share it at the time of these crises. The government has been quick enough to introduce one more option for exemption under Section 80G of the IT Act for encouraging donations to the PM CARES fund, but has not been vigilant to ensure that funds would be available to make such donations by providing some rebates or relief.

Let us consider the following illustration:

> Mr M along with his family stayed in India till 2015. Thereafter, Mr M alone pursued his education in the United States (US) and thereafter started his business there. He makes visits to his family in India every year, and spends a few days in India and thus maintains a non-resident status in India.

Under the provisions of Section 6 of the IT Act, the number of days spent in India is taken into consideration for determining the residential status of an assessee. The residential status of an assessee has massive tax implications under the IT Act. Citizens of India who stay throughout the year outside India and claim non-resident status may have been unable to

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go back to the country of their residence due to various travel restrictions imposed by the GOI and/or the country of their residence. A pertinent question that would arise in such a situation is whether these days of stay in India would be included or excluded from computing the number of days spent in India in 2019–20 and 2020–21.

Going a step further, modifying the above illustration,

> Mr M is employed in a company in the US and draws salary income in the US. His income is taxable in the US. This company has no business connections in India and whose business operations are wholly outside India.

Under Section 9 of the IT Act, income, in the nature of salary, in the hands of a non-resident assessee is taxable in India, if it is paid for services rendered by such a non-resident in India. Let us say that there are assessees who are employees of an entity outside India, the business operations of which are also wholly outside India, and such employees continue to draw salary from such entities while working from home in India during this period. In the absence of any relaxation, the salary income accruing to such employees will become taxable in India, even though they are rendering services for an entity, which, as such, has no business nexus with India.

Under the provisions of various double taxation avoidance agreements, there is a threshold number of days for determining whether an entity has a permanent establishment in India. Having a permanent establishment can have huge tax implications on the entity. One of the ways of determining whether an entity has a permanent establishment in India or not is by taking into consideration the number of days spent in India by a delegate of such foreign entity for performing any specified task in India on behalf of the foreign entity. When such delegates visited India for some specified task on behalf of their entity, and were forced to remain in India even after completion of their task, how would the days be computed for income tax purposes for examining whether it constitutes a permanent establishment in India?

The guidance report, "Organisation for Economic Cooperation and Development (OECD) Secretariat Analysis of Tax Treaties and the Impact of the COVID-19 Crisis" was released in April 2020. In the report, the OECD has urged the domestic tax authorities to clarify issues relating to individuals working in another country and relating to permanent establishments.

Where the due dates for compliances under the act were falling between 20 March 2020 and 29 June 2020, the date has been postponed to 30 June 2020. There are certain conditions under the act, which need to be complied within a particular period of time, say two years. During this period, as the whole country has gone into lockdown, there would be a problem. For instance, if an assessee, who is claiming an exemption from capital gains by making investment in purchasing a new house under Section 54F of the act, was at the last stage of completing the purchase transaction in the month of March, and was unable to do so, there is no reason why he also should not be given an extension or maybe just compute the period of two years by excluding this period of the lockdown.

There are certain incomes under the IT Act that are taxed on "due basis or receipt basis whichever is earlier."[2] There may be several incomes which may have accrued but not received in 2019–20. The question to ponder upon would be, whether the assessees would be liable to pay tax on such incomes despite non-receipt due to the pandemic?

There may be several other instances which will lead to assessees running from pillar to post to seek clarifications for each case. One may only hope that the department would soon bring some clarity on such issues.

The Financial Year

In India, the financial year begins on 1 April and ends on 31 March. The year end is extremely crucial for everyone in the financial and allied sectors. Unfortunately, the lockdown and the disruption in business activities got intense in the month of March in India. This has posed serious problems for all the professionals in the field. Hence, there was a demand to extend the financial year beyond 31 March 2020 in order to avoid problems.

The following are, inter alia, the reasons behind such a demand:

(i) the financial statements prepared for the year ending 31 March 2020 will not give a true and fair view of the business affairs from February 2020 to March 2020 due to disruption of business activities;

(ii) impossibility of carrying out physical verifications of inventories, cash, fixed assets, balance confirmations, fair value measurements, and going concern assessments and other such activities as on 31 March 2020 which are imperative for audits; and

(iii) the difficulties for those following cash systems of accounting.

This problem is peculiar to India because, amongst the countries which are seriously facing the pandemic, only India's financial year ends in the month of March. Most of the other countries follow the calendar year, which is January to December and, hence, would not face a similar issue. Taxation laws generally require accounting records to be maintained and taxes calculated on an annual basis at the end of the financial year.

However, financial year 2019–20 was not extended by the government and all the aforesaid problems remained to be resolved.

Taxes and *Force Majeure*

The ordinance has empowered the government in respect of the Central Goods and Services Tax Act, 2017 (hereinafter referred to as the "CGST Act") to extend the time limit specified, or prescribed or notified, in respect of actions which cannot be completed or complied with due to *force majeure*. An explanation appended to that section defines force majeure to include an epidemic. This provision gives relief to the taxpayers insofar as the CGST Act is concerned. For those who have to comply with the provisions of the CGST Act may be protected by this new provision. One would expect a similar section to be inserted in the IT Act too. After all, it is a fiscal statue just like the CGST Act. Nonetheless, no such section was added in the IT Act. One may wonder why the term force majeure is

conspicuously absent from direct taxation laws. Nothing, not even a pandemic, can affect direct tax, let alone any other force majeure event.

Ironically, while the government has announced purported tax relief measures, the Central Board of Direct Taxes has been pressurising high income tax paying assessees to pay tax. The actions of the Central Board of Direct Taxes are not in conformity with the policy of the government.

Other Allied Laws

In respect of corporates, "Ministry of Corporate Affairs: General Circular No 11/2020, 24 March" was issued by the GoI by which various reliefs during the moratorium on the Ministry of Corporate Affairs were granted. In contrast, the ordinance in respect of the Income Tax Act, 1961 dated 31 March 2020 is not only ambiguous and vague, but also displays a half-hearted attempt to provide any relaxation.

The GoI, Ministry of Corporate Affairs has clarified that spending of corporate social responsibility funds by the companies for donation towards COVID-19 would be eligible as corporate social responsibility activity, vide "Ministry of Corporate Affairs: General Circular No 10/20, 23 March 2020." This has led to incredible initiatives taken by the corporates to help ease the pressure on the GoI while dealing with the pandemic.

The threshold limit for initiating proceedings under the Insolvency and Bankruptcy Code, 2016 has been increased from ₹1 lakh to ₹1 crore by "Ministry of Corporate Affairs: Notification to increase the threshold under IBC, 24 March 2020." The increase in threshold was with an objective to prevent insolvency proceedings being initiated against micro, small & medium enterprises. Therefore, the clear objective of reducing economic pressure for payments between non-state entities is visible from such measures. However, where the state is on the receiving end, that is, receipt in the form of direct taxes, no such measure is implemented.

Measures in Other Countries

In the US, the Internal Revenue Service, inter alia, provided that the due date of 15 April 2020 is postponed to 15 July 2020 for filing federal income tax returns and for payment of federal income tax payments without any interest or penalty. Businesses can retain and access funds that they would otherwise pay to the Internal Revenue Service in payroll taxes. If those amounts are not sufficient to cover the cost of paid leave, employers can seek an expedited advance from the Internal Revenue Service by submitting a streamlined claim form.

In the United Kingdom (UK), the problem of computing the days spent in the country for determining the residential status of an individual has been dealt with by providing for test of exceptional circumstances. If an individual is staying in the UK under exceptional circumstances, such exceptional period of stay will not be taken into account.

Ireland's revenue department has issued guidance to disregard the presence of an individual in Ireland—and where relevant, in another jurisdiction—for corporate income tax purposes for a company in relation to which the individual is an employee, director, service provider or agent, if such presence is shown to result from travel restrictions related to COVID-19. The individual and the company should maintain a record of the facts and circumstances of the bona fide requirement of presence in the state, or outside the state, for production of revenue if evidence that such presence resulted from COVID-19-related travel restrictions is requested.

France, which is well-known for its stringent tax laws, has provided that the companies can request the deferral for three months of few taxes that were due in March or may seek a tax rebate without penalty. However, any company availing of this relaxation has to give a commitment that it shall not distribute dividends and not buy back its shares in 2020. This displays a proper checks and balances measure, where companies are given the required relaxation and, at the same time, the possibility of abuse is prevented.

Measures India Can Consider

To provide an incentive to employers and to enable them to continue paying their employees, the requirement of deducting tax at the source may be relaxed under Section 192. This would also ensure that employees will receive a gross amount of salary and thus have more cash available for spending. Further, to discourage companies from reducing the wages of or laying off of their employees, a weighted deduction of 150% or 200% of salaries could be given for a year. For the industries that are hit the worst and taking into account the annual turnover and size of the entity, inter alia, the travel industry, hotel industry, tourism industry, construction may be allowed full deduction of 100% on their income for a few years under Chapter VI A. Further, if the government rolls out any subsidies to any of the industries, the same should be exempted from tax. The number of years for carrying forward losses must be increased for all assessees.

Conclusions

In the present circumstances, where there is an overwhelming need of immediate tax measures, the taxpayers are disheartened, looking at the limited scope of actions taken by the GoI. Although India might have just begun to feel the impact of the COVID-19 pandemic on its economy, it is time to take lessons from all over the world and adopt a holistic approach while taking policy decisions.

As in the past, India's taxation policy has not been favourable for attracting foreign direct investments. The investors around the world will try to find a cushion where they can make investments safely, more so due to the economic imbalance caused by the pandemic. In such a scenario, it is very important to strategically plan and adopt a scrupulous approach in designing taxation laws.

NOTES

1 So, for example, if interest was levied at 12%, it shall now be levied at 9%.

2 For instance, income from salary.

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An Apostle of Sociological Theory
Yogendra Singh (1932–2020)

K L SHARMA

A student and fellow sociologist reminisces about Yogendra Singh, a distinguished scholar and theorist, and a founding member of sociology centres at the University of Rajasthan and Jawaharlal Nehru University.

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It is not easy to believe that Yogendra Singh is no more. He passed away peacefully while having breakfast around 10.15 am on 10 May 2020. His daughter Neerja Singh, her husband Hulas Singh and two grandchildren were with him when he breathed his last after a massive cardiac arrest.

I was his student when I enrolled in the MA (Master of Arts) programme of Department of Sociology of the University of Rajasthan in 1961. Yogendra Singh taught there from 1961–70. In 1970, Singh moved to University of Jodhpur as its first professor of sociology, and in 1971, he was invited by Jawaharlal Nehru University (JNU), New Delhi to establish the department of sociology, named as Centre for the Study of Social Systems (CSSS). He superannuated from JNU in 1997, and thereafter he was designated as Professor Emeritus. In JNU he also served for several years as dean of the School of Social Sciences as well as rector of the university.

I completed my PhD (doctor of philosophy) under his supervision in 1968. I was his first PhD student. N K Singhi and I P Modi were others who pursued PhD under his supervision at the University of Rajasthan. At JNU, Dipankar Gupta, Pradip Bose, J S Gandhi, C N Venugopal, Jag Bandhu Acharya, Pushpendra Surana, Nirmal Singh, Poornima Jain, Savita Bhakri, Kameshwar Chaudhary, Manish K Verma, and Madhu Nagla, to name a few, were Singh's doctoral students. Singh supervised more than 50 PhD students.

Singh obtained his MA and PhD degrees from the University of Lucknow. He studied under eminent intellectuals like Radha Kamal Mukherjee, D P Mukerji, D N Majumdar, Baljit Singh and A K Saran. After obtaining his PhD degree in 1958, he taught for three years at the Institute of Social Sciences, Agra, before moving to Jaipur in 1961. T K N Unnithan, Indra Deva and Yogendra Singh together established the Department of Sociology at the University of Rajasthan.

Singh was born in a zamindar family in village Chaukhara in the then Basti district of Uttar Pradesh. He sensed the wave of social change coming over India after independence in the wake of zamindari abolition. He decided to go for higher education, for he was eager to learn of the transformations taking place in the wider world outside.

Singh remained a teacher throughout his professional career. He taught in Uttar Pradesh, Rajasthan and Delhi for four decades, out of which he was at JNU for 27 years. The Department of Sociology at Jaipur and the CSSS at JNU were known as "Yogendra Singh's departments." While at Jaipur (1961–70), he was also a visiting faculty member at McGill University, Canada for one year and at Stanford University, United States for one semester.

An Incurable Theorist

In my opinion, Singh was an extraordinary person; he was both a scholar and a fine human being. He was an excellent speaker and communicator of knowledge. Not only students of sociology benefited from his scholarship, but several scholars of other disciplines also used to attend his lectures at JNU. He had sound knowledge of classics and of original texts. He moved between theories and theoreticians with equal facility. At the University of Rajasthan, his students would call him George Lundberg one day, when he lectured on the foundations of sociology; the next day, he would be likened to Talcott Parsons, who, like him, was "an incurable theorist." And at other times, we would call him C Wright Mills, Peter L Berger, Karl Marx, Max Weber, V Pareto, etc, so comfortable was he with all the building blocks of sociology. Singh's understanding of theory was profound and he constantly emphasised the triple alliance between theory, method and data. With ease, he presented concepts through empirical realities and made reality come alive with theoretical substance.

Singh was a supreme synthesiser of complex ideas and frameworks. He pursued a "middle path" approach based on pragmatic eclecticism. He drew from all major sociologies from diverse provenance, which included scholarship from the United States, the United Kingdom, France, and India. Not just Marx, Weber

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and Durkheim, but the contributions of Parsons, Merton, Dahrendarf, Malinowski, Radcliffe Brown, Bottomore, Levi–Strauss, Alain Touraine, Bourdieu, and Louis Dumont, are also deeply embedded in Singh's writings and teaching. His admirers, consequently, also come from a cross-section of academics.

Analysing Indian Society

Singh has written on a wide array of themes with deep understanding and concern. These include: theory and method, social stratification and mobility, tradition and modernisation, professions, Indian Sociology as a discipline, culture, society and change. His book, *Modernization of Indian Tradition*, provides a path-breaking paradigm shift in the understanding of social change and development. It is also an invigorating critique of the culturological explanations of social change.

Lately, Singh analysed Indian society in terms of caste, class and community, where he examined caste in terms of class and power. This allowed him to view this phenomenon as a social resource, and as a means for accomplishing a variety of mundane activities as well. His treatise on modernisation is clear evidence of an "integrated approach" to the study of social change. This explains why his book, *Modernization of Indian Tradition*, has made an everlasting impact on both teachers and students everywhere.

There are five major theoretical orientations in Singh's sociology. These are: (i) the comparative historical approach, (ii) philosophico-sociological approach, (iii) logico-philosophical approach, (iv) structural-functional approach, and (v) statistical-positivistic approach. Together they tell us how wide Singh's lenses were when he studied social reality and also how distant he was from dogma.

One could perhaps also see Singh's career as it developed through various phases. In the first phase (1961–1970), he gained instant recognition at the University of Rajasthan, which was a major achievement given that this institution had luminaries like G C Pande, Satish Chandra, Iqbal Narain, Daya Krishna, and Raj Krishna in its ranks. The second phase began in 1971, when he joined JNU. This period is also coterminous with the publication of his book, *The Modernization of Indian Tradition*. From this time on, Singh remained a significant academic voice campaigning for a cross-fertilisation between structural and cultural approaches and for a commitment towards a holistic and integrated sociology. He gave substance to this academic dispensation in succeeding years when he wrote on a variety of themes such as on theory and method, on the functional metaphor, and also on the larger theme of the relevance of social sciences in India.

For Singh, Indian Sociology can be best understood in terms of four stages: (i) 1952–60; (ii) 1960–65; (iii 1965–70; and (iv) 1970–77. He did not separate them on the basis of scholars or area of study but on the fact that each phase bore distinctive theoretical orientations. The first phase, he classified as philosophical; the second, culturological; the third, structural; and the fourth, dialectical historical. Since the 1970s, Singh further observed that Indian sociology had witnessed a multiplicity of discourses, ranging from "dialectical–historical" to the "critical" to "symbolic–phenomenological."

In his writings and lectures on social change, Singh often emphasised the important point, namely, theories are different from ideal types and the presentation of continua. This comes through very clearly in his scholarship, but more particularly in his writings on globalisation, information society, and social identity. For example in his essay, "On the Social Conditioning of Indian Sociology: The Perspective," written in 1986, he examined the extent to which theoretical and cognitive systems of sociology are socially conditioned.

At JNU, Singh was widely considered as a highly respected teacher and thinker. His lectures were mesmerising for their fluency and for their rich content. He was an inquisitive researcher even in his later years. In one of his more recent writings, on the basis of the contemporary changes in villages, Singh argued for the need to rethink the conceptual categories of community, caste and social class. He based this argument on his long-term analysis of social change in rural India from 1955–2007.

Any assessment of Singh, coming either from his students, colleagues or academics in general, will agree that he was a thoroughgoing liberal, in the best sense of the term. The range of his scholarly interests is also stunning, for it covers such a wide number of topics from village society, to crime, to non-violence, to youth culture, to factions, and to social change and modernisation, of course. Nowhere is there what Stanislav Andreski would term as "manipulation through description" nor "the smokescreen of jargon." Also, there was no "camouflage" or hidden agenda in the name of theory, method and objectivity. Singh was successful in freeing himself from dogmas as he ably crossed both the substantive and theoretical bottlenecks. In this connection it must also be mentioned that he always strived for sociology devoid of, and unencumbered by, colonial trappings.

As a person, Singh was a thorough gentleman, well-mannered, unassuming and unpretentious. He used to express even his dissenting opinion in a very polite way, and would always strive for a consensus. One also saw this in the way he conducted faculty meetings and discussions in JNU. He was a true democrat in letter and spirit. Even a day before his demise, Singh was intellectually alive. He animatedly discussed the need for new concepts to study the post-COVID-19 world. Till the very end the "why" question drove Singh's research agenda.

The setting up of the CSSS under his stewardship was his greatest institutional contribution to social sciences. The CSSS became a recognised department the world over and a trendsetter in the study of social mobilisation. Twice, it has been ranked internationally as a centre of excellence. His students, colleagues and admirers, in a condolence meeting held by the Babasaheb Ambedkar Central University, Lucknow, observed: "Besides his academic excellence, he enveloped all those around with his scholarly persona, calm composure, and his ever smiling, warm demeanor."

Lastly, for me, it has been a great personal loss. I have learnt a lot from Singh. He will always remain my guiding light and spirit. In 1994, Singh was honoured by the CSSS on his superannuation in the presence of a galaxy of scholars from all over India. Already, six volumes have been published in his honour by his students. This is a very rare academic honour and one that Singh richly deserves.

Swidden Farming among the Yimchunger Nagas

JELLE J P WOUTERS

BOOK REVIEWS

The Politics of Swidden Farming: Environment and Development in Eastern India by Debojyoti Das, *London and New York: Anthem Press, 2018; pp 272, £70 (Hardback).*

This book offers a sociopolitical ecology of swidden agriculture (*jhum*) among the Yimchunger Nagas. Debojyoti Das, the author of this book, throws into focus the dialectic between *jhumming* as a cultural lifestyle and jhumming as a presumed marker of backwardness in need of amelioration. Jhum cultivation has, indeed, long received bad press, especially from statist epistemology that sees its practice not only as ecologically damaging and economically unrewarding, but also its practitioners as difficult to control and govern. Both colonial and postcolonial governments, this book illustrates, have long sought to dissuade Naga villagers from jhumming and to make them take up settled agriculture, horticulture, and plantation cropping.

While this attempted shift is deemed justified in the name of science and development, in actual reality, Das posits, it is driven by political expediency. This argument, which is the book's main proposition, is hardly original, as James Scott (2009) influentially typified swidden agriculture as "escape agriculture," as its mobility, dispersal, the inaccessible terrain and social fragmentation worked to keep tax-hungry states away. However, showing the precise ways through which eventual state enclosure unfolded, and the role of state-directed agrarian changes in this process, merits historical and ethnographic study in particular settings.

Settling Swidden Farmers

Das explains that his initial research was meant to study a state project aimed to transform swidden agriculture to settled agriculture, namely the Nagaland Empowerment of People through Economic Development (NEPED) project. By his own admission, Das soon failed to nourish the trust and empathy the project officers first had towards him and his research, and he lost all access to the project (p 199). That opportunity lost, Das now offers us a partly historical, partly ethnographic, and partly speculative account of the history and politics of jhum cultivation among the Yimchunger tribe in particular, and the Naga in general. He does so over eight chapters, including an introduction and conclusion. Chapter 2 is a reflection on research methodology and ethics while carrying out fieldwork in the volatile local surroundings, given the protracted Indo–Naga conflict and the factional divides internal to the Naga movement for the right to self-determination. Chapters 3 and 4 offer a historical reconstruction of the Nagas' relation with the state, both colonial and postcolonial, and emphasises how state control was effectuated through violence, indirect rule, and through development efforts aimed at settling swidden farmers.

Chapter 5 claims to be ethnographic and offers a few vignettes of agrarian change and land relations in the Yimchunger village of Leangkonger (although Das, elsewhere in the book, also confusingly spells it as "Leangkunger" and as "Leangkangru" [p121]). It discusses the social hierarchy and differential land rights that exist between "first" and "second settlers" in the village and shows how, in recent decades, the arrival of state-led development programmes and electoral politics enabled second settlers to contest their traditionally disadvantageous social status and standing in the village. This is an important insight that, in terms of contemporary relevance, transcends the case of the Yimchunger. However, for all the claims to be an ethnographic work, we learn little about the village's inhabitants and their social life. Across the book, sentences such as "the tribe's members offered insights," "a tribe member was quick to present his views" (p 5), "the elders replied," "a church member smilingly remarked" (p 37), or "villagers explained" (p 125), and the general absence, with few exceptions, of Yimchunger names and voices, make the ethnography appear generic. It also produces a certain ethnographic anonymity, and therefore fails to breathe ethnographic life in the hitherto scantily researched Yimchunger Naga.

Chapter 6 is arguably the most insightful of the book and links the arrival of Baptist Christianity with changing social appropriations of labour, time, ethics, and the body. Chapter 7 presents the data the author collected regarding the NEPED project before its officers pulled the shutter down on him, and shows the kind of gap between policy and practice that one has now learned to expect from any development project.

Missed Opportunity

This book offers some useful historical and ethnographic insights into the dialectics of agrarian change among the Naga. It also does so from the vantage point of a community that, both in the colonial and postcolonial eras, did not attract the kind of scholarly attention that several other Naga communities received. However, it is the many missed opportunities, failures, internal contradictions, and factual and spelling errors that draw the most attention in the book. This starts with the title that locates the Naga highlands in "Eastern India," a term that is usually reserved for the east coast of India, near the Bay of Bengal, including the states of West Bengal, Jharkhand, Bihar, and Odisha. Including the Naga highlands as part of eastern India is quirky at best, and risks the obliteration of North East India as a distinct historical, political, and social space within the Indian dispensation.

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I am also rather confident that none of Das's Yimchunger informants would agree that they reside in "Eastern India." What they would disagree with even more is to Das classifying them as a "subtribe" (p 5). Not only are the Yimchunger listed as a fully fledged Scheduled Tribe by the Nagaland government, but they also speak and think of themselves as a major Naga tribe, and for which they have very good reasons. One further wonders what Yimchunger elders, who generously shared their knowledge, experiences, and time with Das, will think of him denouncing their narratives as often being "distorted and unconvincing" (p 77). This is not a conclusion worthy of an empathic anthropologist, who rather should concern himself with explaining, even theorising, the difference between official accounts that were written down by colonial officers and oral histories, or between what the Yimchunger say they do (or did) and what they actually do (or did).

What afflicts the book are the factual mistakes, internal contradictions, and sweeping claims that go unsubstantiated. Examples are galore, and brevity of space allows me to mention only a handful. Foreign missionaries were expelled from the Naga hills in 1955, not in 1947 (p 71) as Das claims. Nagas were not "outside the colonial remit of registered census subjects" (p 15), but figure, in detail, as early as 1891 census. On page 12, Das specifies that between 1835 and 1851, the British carried out 10 punitive expeditions in the Naga hills. On page 57, these 10 expeditions, however, become "innumerable punitive expeditions" during the same time. We also note that the majority of archival works that are cited in relation to the historical case of the Yimchunger are not actually about them. What opens, as a result, is a gap between the Yimchunger case, which the author sets out to study, and the more general overview on jhum cultivation in the hills we are now presented with.

On the whole, archival evidence does not move beyond the occasional quoting of colonial tour diaries. When evidence is not there, Das expects his readers to be convinced by him stating: "local administrators in the Naga Hills were describing and making pronouncements on *jhum* practices in their tour reports" (p 96) or "this contrast [between settled and swidden cultivation] is repeated through the colonial area" (p 99), but so without substantial proof or references. We just have to believe that this is the case. A few pages later, Das, however, confesses that "there is little evidence of any systematic policy leading to the transformation of *jhum* landscape in the Naga Hills" (p 105). This confession is startling, given that, at the very beginning of the book, Das asserts that "improving [jhum] farming practices was bound up with indirect rule as a distinct process of governance involving forms of knowledge and intervention" (p 2). Now, which one is it?

Then there are the sweeping statements and unfinished arguments. The author asserts that "colonial state intervention" (p 57) can be recounted in four distinct phases: (i) punitive expeditions from the mid-19th century onwards, (ii) anti-slavery expeditions into the unadministered area from the 1920s, (iii) massive militarisation of the Indo–Burma borderland after 1947 (can this period really be classified as colonial? Or does the author argue that arrival of the independent Indian state in the Naga highlands was a colonial act? He does not say), and (iv) Not specified. (This phase is not specified, although Das seems to allude that this pertains to the current moment of the ceasefire, but which, again, would not obviously qualify as "colonial state intervention".)

Such unfinished arguments are many. Das argues that British punitive expeditions worked to de-historicise practices of slave-trading and head-taking that "was central to the local economy" (p 56). (No explanation is given why and how this was central to the Naga economy.) He also asserts that "anthropologists were now [post-independence] collaborating in the making of the postcolonial nation state" (p 63). (Is this really true? Are there no counter-currents? If indeed so, why, then, were anthropologists, both Indian and foreign nationals, for many decades, refused entry into the Naga highlands?) Another empty, unfinished statement is that local electoral politics is "messy" and that those who resisted "party protocols laid down by political intermediaries faced execution and threats from village henchman" (p 80). ("Henchman" should be written in the plural, as "henchmen," but that aside, this statement certainly would need some evidence and justification. Concluding that something is "messy" and leaving it at that is not what we would wish to read a scholarly treatise for.) Equally sweeping is Das's argument that "Naga nationalism has metamorphosed into ethno-nationalism" (p 201). (What is the difference? How did it metamorphose? This the author apparently just wants us to guess.)

Another problem, and a major one at that, is the author's refusal to engage with the existing scholarship on the Nagas. According to Das, the Naga highlands is "a region that rarely figures in

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Indian studies" (p 4). A more correct way of putting this is that literature on the Nagas rarely figures in this book. If anything, the past two decades witnessed a surge in Naga studies and the publication of a large number of books and journal articles by a range of scholars that include Arkotong Longkumer, Dolly Kikon, John Thomas, Vibha Joshi, Michael Heneise, Lipokmar Dzüvichü, Andreas Küchle, and Lanusangla Tzüdir, as well as by the "two German anthropologists" who had spent some time in Das's research village, before his own arrival, and who he (without naming them) accuses of being unethical in their research (p 40). Das refused to engage with any of this scholarship, even when it closely resonates with his own focus and arguments.

Equally, if not more, concerning is that this book carries only a handful of references to locally-based Naga scholars, writers, and intellectuals, many who have written about themes similar to the work under review here. Their work may not have been published by fancy university presses or appeared in acclaimed international journals, but it is nevertheless widely available, carefully researched, informative and genuine. This refusal to engage with local scholars is all the more striking, given Das's many pages of critical evaluation of research ethics and the need to provide emic perspectives and to write Naga agency back into the historical contemporary moment.

The author also greatly struggles with local terms and names. Nagaland's state capital, for instance, is not "Khomia" (p 8) but "Kohima;" the community living in Phek district is the "Chakhesang," not the "Chekhesang" (p 8); the local term for village or clan elder/leader is not "gaon burha" (p 13) or "gauh burha" (p 130) but "gaon bura;" "Kalyo–Kengyo" should be "Kalyo–Kengyu" (p 47); the first name of Major Khathing is variously spelled as "Ralengnao" (p 15) and "Ralengnan" (p 59); "nation worker" (pp 53, 59, 61, 63) should be "national worker;" "Tabu" (p 59) is actually "Tobu;" "Khemyungen" (p 68) should be "Khiamniungan;" "Tynemia" (p 99, 208) should be either "Tenyimia" (in reference to the Angami tribe, and closely related tribes) or "Tenyidie" (in reference to a closely related cluster of languages); "Sangtham" (pp 107, 110) should be "Sangtam;" "Saging Division" (p 109) in Myanmar should be "Sagaing Division," and the list goes on. Of course, we all make the occasional typo, but the number of spelling inaccuracies in this book is such that they distract greatly.

A particularly telling error is Das changing the subtitle of James Scott's book *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia* to "An Anarchist History of Highland South East Asia" (p 11). While this changing of "uplands" to "highlands" may seem innocuous, especially in comparison to the many other shortcomings of this book, it nevertheless appears as blatant, given that James Scott himself praised Das's book in a blurb on the back cover, making one wonder whether Scott actually had sufficient time to read it cover to cover (in which case he would have surely noticed the mistake). It is a mistake that is emblematic of the sense of scholarly carelessness that runs through the pages of this book.

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An Entangled History
Jesuit Missionaries in Brazil and India

DIVYA KANNAN

The Empire of Apostles: Religion, *Accommodatio*, and the Imagination of Empire in Early Modern Brazil and India by Ananya Chakravarti, *New Delhi: Oxford University Press, 2018; pp xiv + 356, ₹995, hardcover.*

Ananya Chakravarti's *The Empires of Apostles: Religion, Accommodatio, and the Imagination of Empire in Early Modern Brazil and India*, situated across various temporal and spatial scales, is held together by the use of historical biographies. She narrates the life journeys of six Jesuit missionaries belonging to the Society of Jesus; a Jesuit organisation inextricably linked with the fluctuating fortunes of the Portuguese empire in south-western India and Brazil. That the empire's fortunes were never absolute is at the core of this richly detailed and nuanced work that seeks to challenge traditional historiography on the subject. The author brings to life the myriad ways in which the location of Jesuit missionaries in these regions constantly shifted back and forth from being marginal actors to the centre of the Portuguese empire in the 16th and 17th centuries. Her scholarship makes a remarkable contribution in bringing South Asia and Latin America together in dialogue by employing postcolonial frameworks deftly to interrogate the ambiguities of global politics.

The lives of the Jesuit missionary men—Francis Xavier, Manuel da Nóbrega, José de Anchieta, Thomas Stephens, Baltasar da Costa, and António Vieira—depict a complex, and often fraught relationship between the imperial Crown and the Church. The Jesuits, though universal in tone, were often particularistic in conduct. The performance of their politics as figures of temporal and spiritual authority, embedded in Portuguese expansionist regimes, is a running theme across the book. In their interactions with various local power groups in India and Brazil, the missionaries revealed their loyalty to the Portuguese imperialistic project as fundamental to the propagation of Christianity. This was most evident in the initial misadventures of Francis Xavier, one of the most celebrated Jesuits in the 16th century, in Malabar, where he had come to prevail upon the lower-caste Parava fishing community. Utterly dismayed at the stiff opposition of the "heathens," particularly the upper-caste Brahmins, and the possibility of not earning adequately "trustworthy" converts, Xavier was compelled to leave the region sooner than expected (p 65). However, his travails and anxieties lay buried within private correspondence or *hijuelas* to fellow missionaries in other parts of the world and supporters back home. On the surface, he put forth the need for the Church and Crown to act together. However, Chakravarti excavates these written records further, despite the absence of adequate indigenous voices, to weave a complicated picture of Jesuit activity in local missionary spaces. She delves into these dense archives marked by different languages to demonstrate the strategies adopted by the Jesuits to attract converts to their fold when tools of coercion and the threat of imperial annexation often tended to fail. Prime among the strategies that evolved out of experience and pragmatism, undergirded by Jesuit theological discourses and indigenous cosmology, was that of *accommodatio*. As the name suggests, accommodatio was employed repeatedly by Jesuits to adapt elements of local belief systems and social practices to convey Christian theological ideas. The strategy of accommodatio went hand in hand with the evolution of what the author calls the "religious imaginaire of empire" (pp 7–10), wherein the Jesuit priests firmly believed that they were destined to play a crucial role in enlarging the Portuguese empire. In truth, in the face of the messy reality of colonial politics, they clung to accommodatio to equip them with a language by which they would not fade into oblivion.

The Politics of Accommodatio

What did accommodatio entail? Chakravarti's sharp insights take the readers into these layered, and sometimes violent, spaces of interaction between the missionaries and the communities among whom they lived: in India, the lower-caste Paravas fishing community in Malabar and various Hindu caste communities in the coastal region of Goa, and the Tupiniquin village of Piratininga of southern Brazil. It was based on their everyday encounters with indigenous people, ranging from acceptance to resentment, that the missionaries developed accomodatio. For instance, José de Anchieta's poetical corpus was a result of his deep understanding of the need to connect with Tupi culture in Piratininga. In his case, he utilised the Tupi song to launch an attack on the tribe's orality (p 141). The reorientation of the Tupi song was imperative as it demonstrated to the Jesuits that missionaries could not solely rely on the Crown's military agenda to propagate Christian civility. However, faced with bitter resentment caused by the intrusion of such notions into Tupi warfare rituals and marriage, Anchieta grew disillusioned; a sign of the limits of accommodatio and, in many ways, the religious imaginaire of the empire itself.

While, in the 16th century, Xavier and Anchieta strongly held that their purpose lay in forging new Christian communities among the "ignorant" and "savage" heathen, they knew that they had to embed themselves as cultural and linguistic intermediaries as well. Chakravarti emphasises this repeatedly to argue that the missionaries were utterly conscious of their role in these colonial encounters. Despite numerous interruptions from below, the missionaries cautiously tread a path in which they could not entirely alienate their nascent Christian communities by forcing upon them Christian codes of conduct.

In Brazil, the order was faced with the realisation that their newly founded

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Christian congregations were not divorced from their pre-Christian social systems of organisation and ritual. In this regard, a question of particular vexation for the Jesuits was that of Tupi warfare in which revenge was central. To distract supporters, in his communication back home, Anchieta depicted that the "gentile enemies defeated, but they also created local Christian martyrs, whose actions were a model of bravery" (p 151). He adapted his language and infused it with idioms of Christian virtues to disguise the violence he associated with warfare rituals.

These converts were, after all, not the ideal believers the Jesuits had hoped to uphold as the best of the lot. In the missionary's eyes, the Tupis' culture of warfare in which converts and non-converts participated together could be transformed via accommodatio (p 177). But, the underlying message was clear. In spite of familiarity with the language and adoption of local symbolism and figures of authority, such as the shamans or *karaibas*, the tools of proselytisation, learnt in the monastic orders of Europe, did not yield the exact desired fruit.

Similarly, for instance, Jesuit missionaries came to be at the heart of global politics, but could not survive without indigenous catechists, as was evinced by Baltasar da Costa in Madurai where he negotiated his position between the lower-caste Paraiyans and the political elites of the Nayaka society. Chakravarti notes that the catechists in Madurai were significantly more effective in evangelising their brethren than the Jesuits themselves (p 269), an example of the limits of accommodatio. In short, the Jesuits in the colonies occupied a far more precarious position than they would have liked to believe.

Yet, despite the reality of the missionary message remaining at odds with indigenous structures of authority and custom, the missionaries did not remain mute spectators in the theatre of the empire. As the chapter on English Jesuit Thomas Stephens shows, they were privy to the violence underlying the projects of conversion in the regions as well. Surrounded by various Hindu groups in the small village of Salcete in Goa, Stephens witnessed brutal massacres of Jesuits and their sympathisers preceded by the corrupt nature of missionary work (p 199). His position as a non-Portuguese only complicated his experience of factionalist Jesuit politics and competing European rivalry in the Indian Ocean. Towards the end of his career, Stephens also resigned to literature and produced the *Discurso Sobre a Vinda de Jesu Christo* (Discourse on the Coming of Christ), popularly known as Krista Purana. Though well-versed in the vernacular languages such as Konkani and Hindustani, his decision to write it in Marathi, the high poetical language used mostly by the Brahmins, revealed Stephens' bias and "a hierarchical understanding of the conditions of accommodatio" (p 208). Like Anchieta in Brazil, he could not "fully insulate himself and his missions" from the local reality (p 227). Such narratives of an entangled history abound in the book that seeks to expose the fractures of the Portuguese empire from within.

The book's narrative style takes you back and forth in these intercultural encounters, which were unequal but not unusual. Chakravarti asserts that the mismatch between their actions on the ground and their religious beliefs forced the Jesuits to realise that the Crown did not always consider the Church on its side. In India, the Portuguese remained one among many political players vying for regional territorial power. Thus, Jesuits were party to many conversations with local kings and military forces in order to secure their already fragile hold.

Past as Present

In the story of accommodatio, thus, lies the story of the Portuguese empire itself. The missionaries' sense of self-importance was eclipsed by the larger political schema by the advent of the 17th century. With the repeated onslaughts of the Dutch on maritime trade and naval warfare, the missionaries had to face a retreat, ideologically and otherwise. It was, by default, an admission that the triumphalist vision of the empire was fraught with moral and political frailties.

Chakravarti, however, does not stop merely at chronicling the past. By referring to the stances of moral imperialism adopted by the Catholic Church in the present, she demonstrates a longer history of global Christianity. Herein lies the biggest strength of the book, as the past is constantly in the project of shaping the present. In the contemporary world, as the Catholic Church grapples with crises in faith of younger members and the demand for democratisation from churches in the global South, the interconnected histories of South Asia and Latin America allow the reader to contextualise the situation better. Such scholarship is not commonplace, as the imagination of postcolonial thought is heavily on the influences of metropoles on colonies. Chakravarti attempts to move away to show the flows of intercultural encounters to reveal that the missionary project, akin to the imperial one, was never straightforward. Especially in the ways in which Christianity has evolved in varying cultural landscapes, the story of the Jesuits shows that what happened in reality in the colonies did not always correspond with ideologies propagated in the West. Here, she makes a case for the historian as a secular critic to re-evaluate the role of the Church in the politics of imperialism and urges that a "historicization and demystification of empire is crucial to the work of anti-imperialism" (p 321).

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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.)

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COVID-19, Public Health System and Local Governance in Kerala

T M THOMAS ISAAC, RAJEEV SADANANDAN

Kerala has been successful in containing COVID-19 and in achieving a low rate of spread, high recovery, and low fatality. The importance of the public health system, social capital and the active involvement of the people through local governments that played a significant role in Kerala's success is highlighted. A brief historical review of the evolution of public health system and local governments in Kerala is also attempted.

Since the incidence of acquired immunodeficiency syndrome (AIDS), the first pandemic in the post-globalisation era, public health experts in Kerala have been conscious of the vulnerability of the state to epidemics in any part of the world. The high level of integration with the global economy, large non-resident population living in many parts of the world, and the reliance of the state economy on international tourism contribute to the relatively high vulnerability. The outbreak of Nipah virus infection in 2018 heightened the threat perception. Since then, Kerala has instituted a surveillance mechanism to actively look for emerging pathogens, including disease X (WHO's term for a hitherto unknown pathogen) that may strike the state.[1] So when reports emerged from China about an unknown novel coronavirus, Kerala went into an alert mode. On 24 January 2020, Kerala issued guidelines on managing what was then called the 2019 novel coronavirus (2019-nCoV) and later came to be called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Since the epicentre of the disease was known, Kerala focused on persons who returned from China (or other hotspots as they emerged). Since data on persons whose port of origin fell in China (or in other hotspots) was available with the immigration department, it was possible to identify them and track their contacts and quarantine them. The first three positive cases reported were from the students who had returned from Wuhan. Since all arrivals from Wuhan had been quarantined, further spread was successfully prevented. All the three recovered by 20 February 2020 and the state remained free of active cases till 9 March 2020.

The dynamics of tracing and tracking changed when new epicentres opened in Europe, Iran and the Gulf Cooperation Council (GCC) countries. Many migrant workers living in these countries returned to Kerala. Kerala continued to track the returnees, and their contacts, now much larger in number, who remained in quarantine. Soon, positive cases started emerging from this cohort and Kerala emerged as the state with the largest number of COVID-19 patients in India.

Many simulations about the likely spread of the pandemic predicted a dire situation for Kerala. An exercise undertaken by Protiviti (2020) for Times Network on 12 April 2020 predicted that the confirmed cases of COVID-19 in Kerala would peak on 8 May at 72,057 cases, with 22,281 severe cases needing intensive care. However, on that day the number of confirmed cases was 503 and active cases only 16.

What helped Kerala was the aggressive strategy of quarantining and placing under observation everyone arriving from hotspots, testing all symptomatic persons, and, if proved positive, tracing their contacts and placing them under observation. As can be seen from Table 1, the number of new persons placed in institutional or home quarantine began to sharply increase from 495 cases in the first week of March to 84,718 cases in the last week of March. The peak was reached on 4 April when a total of 1,71,355 persons were under observation. Thereafter, the number steadily declined reflecting the decline in new persons put under observation during April.

Since adequate testing kits were not available, the number of persons tested as a proportion of the persons quarantined remained low till the second week of April with the numbers going up as

Table 1: Number of Persons Affected in Kerala (30 January 2020–2 May 2020)

Period	Number of Persons				
	Placed in Home Quarantine	Under Isolation in Hospitals	Tested	Positive and Put on Treatment	Discharged After Being Cured
30/01 to 15/02	3,430	207	415	3	0
15/02 to 29/02	289	30	70	0	3
01/03 to 07/03	433	62	197	0	0
08/03 to 14/03	6,863	549	1,215	19	0
15/03 to 21/03	46,301	452	1,819	30	0
22/03 to 28/03	83,792	926	2,351	130	13
29/03 to 04/04	52,218	1,007	3,677	124	34
05/04 to 11/04	10,160	1,090	4,419	67	93
12/04 to 18/04	534	725	4,611	26	114
19/04 to 25/04	2,260	755	3,586	58	81
26/04 to 02/05	4,424	719	8,823	42	62

Source: Kerala Health Department.

Views are personal.

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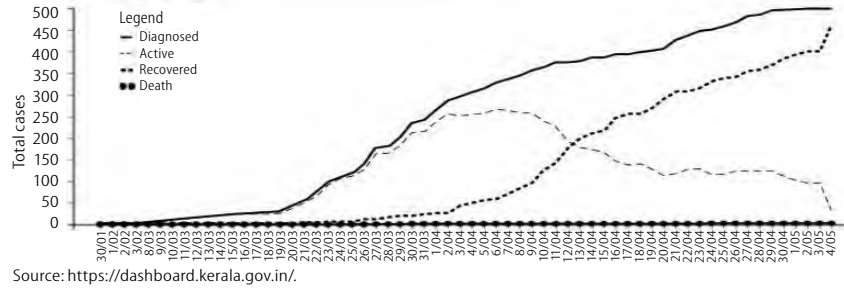
Kerala started community surveillance. What is to be noted is that almost all the positive cases were from people under observation. So community spread was effectively prevented, even though the strategy of testing only symptomatic persons from among the contacts would have missed asymptomatic contacts who were under observation. Such asymptomatic cases, even if undetected, would not lead to spread for the simple reason that the quarantine period would have neutralised the infectious period. That the number of positive persons remains low, even after the number of tests of persons who were not contacts were scaled up is testimony to the effective prevention strategy of the state. Kerala's strategy of quarantining all travellers from epicentres cost the state revenue from tourism, but has paid off in the number of potential infections averted.

As can be seen from Figure 1, the COVID-19 curve continued to gain momentum through the month of March. During April, the number of new cases testing positive began to steadily decline and recoveries accelerated. As a result, Kerala has managed to flatten the curve of COVID-19 infections till now. As on 1 May 2020, Kerala has has the lowest case fatality rate of 0.8% and the highest recovery rate at 78.71%. The national averages are 3.23% and 26.52%, respectively. Finally, by 1 May 2020, Kerala's doubling time (30 days) was almost thrice that of the national average (11 days).

The first major wave has been effectively controlled. There is a high probability that the epidemic could rebound, as has happened in many other countries that achieved similar success early in the epidemic. The large-scale return migration expected from the latter half of May will pose a major challenge of keeping the epidemic under control. However, the factors that helped Kerala control the first wave and defy doomsday predictions have useful lessons for the management of health emergencies in low-resource settings.

This article will explore the factors that contributed to Kerala's successful response to COVID-19. It argues that, in addition to a robust health system and demand for healthcare, the social capital of the state, the trust-based social contract between the state and people, and the active involvement of the community through local governments have played a significant role in Kerala's success. It also looks at a plausible exit strategy for the state from the current situation.

Figure 1: The Trends in COVID-19 Cases of Confirmed, Active, Recovered and Dead



Source: https://dashboard.kerala.gov.in/.

Healthcare System

The core element of Kerala's response to COVID-19 is the strong health system of the state. Good health indicators achieved by Kerala have been attributed to both supply-side interventions by successive governments and other agencies, and demand-side interventions by social movements. The Spread of education, particularly among women, also had a salutary impact on consumption of health services (Jeffrey 1992).

The establishment of the first public dispensary in 1819 by the Maharaja of Thiruvithamkoor (the princely kingdom in the southern region, the main constituent of the present Kerala state) was the first major intervention in the creation of a modern public health system. By 1860, Thiruvithamkoor had seven government medical institutions. Being converts to the Western system of medicine themselves, the royal family lent their prestige to promoting health services (Aiya 1906). This roused interest in Western medicine, while the practice of ayurveda continued to be popular. Education and medical institutions were a part of the evangelical mission of the Christian missionaries (Raman Kutty 2000; Baru 1999).

While underlining the importance of the pioneering efforts of the royalty and missionaries in Travancore, it must also be acknowledged that there were similar initiatives from the government and the missionaries in British India. Nevertheless, we find that by 1940 while British India had 6.8 institutions per square kilometre and 21.27 beds per lakh population (Government of India 1948), Thiruvithamkoor had 22.56 institutions and 46.81 beds, respectively (Government of Travancore 1941).

Even within Kerala, we find a sharp and growing divergence in health and education facilities between Thiruvithamkoor and Kochi in the south and the central and Malabar regions directly under the British rule in the north. The latter was relatively backward in social indicators when compared to the former and the gap widened during the colonial period. The divergent experience in social development between north and south Kerala has been attributed to the difference in the agrarian structures, the former being dominated by landlords and the latter characterised by their relative absence. It facilitated the emergence of a rich farmer class, and later, the development of agroprocessing industries in the south and the emergence of modern classes. This was the background of the powerful social reform movements of the different castes and communities in the south generating demand for education and healthcare which were perceived as ladders leading to upward social mobility (Tharakan 1984, 2008). Such social intermediation was relatively weak in the north (Kabir and Krishnan 1992).

The Malabar region began to close the gap with the rest of Kerala after the unification and formation of the state of Kerala. The first communist government in 1957 initiated substantial investment in health and education facilities in the north. The popular demand for health and education gained momentum with the movement for land reforms and its implementation. The vital contribution of the demand from below for public health has been dramatically revealed in Mencher's comparison of the primary health centre (PHC) in Palakkad in north Kerala and that in Thanjavoor in Tamil Nadu. The demand for healthcare and awareness of entitlements in Kerala were so high that

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any denial of services in Kerala would be met with protests (Mencher 1980).

Owing to popular pressures from below, successive governments in Kerala have invested substantially more in healthcare and education when compared to the rest of India. The share of health expenditure in total government expenditure for all Indian states during the period 1960 to 1970 was 8.13%, while it was 10.43% for Kerala. However, the fiscal crisis of the state government from the 1970s led to forced cutbacks in social expenditures and to questions regarding the limits to the Kerala model (George 1993). The health expenditure ratio declined over time, shrinking to 7.69% in 1985–86, 6.81% in 1995–96, 5.5% in 1999–2000, and 4.5% in 2004–05.[2] When the government cut back investments in health, the private sector stepped in to meet the demand–supply gap (Sadanandan 2001).

From the low in 2004–05, the importance of health in Kerala's budget began to creep up during 2006–11 touching 5.1% in 2010–11, which was maintained till 2015–16. The government that came to power in 2016 launched the Aardram mission with the objective of transforming the PHC and increasing the percentage of population using government hospitals. Under the mission, more than 5,289 posts of hospital workers were added in addition to doubling plan investment from ₹629 crore in 2014–15 to ₹1,419 crore in 2018–19 through budgetary resources (State Planning Board 2018). An amount of ₹2,266 crore was raised through a special purpose vehicle (Kerala Infrastructure Investment Fund Board) committed to improving hospital infrastructure and equipment (Government of Kerala 2020). The results have already become evident. The percentage of persons using government facilities went up from 34% in the 71st round of National Sample Survey Office (NSSO) in 2014 to 48% in the 75th round in 2017–18 (NSSO 2015; NSO 2019).

Response of the Health Department

South East Asian countries, like Taiwan, that had very close links to China and were expected to have an epidemic similar to the Chinese one, benefited from their experience of having managed the SARS epidemic, which had a similar route of spread as COVID-19.[3] The experience of managing two episodes of Nipah gave Kerala a comparable advantage. Health workers were trained to trace, track and transport persons with symptoms safely, isolation beds and protocols for providing supportive care were in place, and people were familiar with the importance of observing house quarantine. Above all, people had lived through the terror of an unknown pathogen and had never underestimated the threat of the new virus.

From January 2020, Kerala started preparing systematically to handle a possible outbreak. The standard operating procedures issued by the state covered such areas as infection prevention and control for ambulances, management of biomedical waste, handling the spill of body fluids, disinfection and sterilisation, handwashing, management of dead bodies, use of personal protection equipment (PPE), and sample collection and transportation. A set of consolidated guidelines covering testing, quarantine, hospital admissions, treatment, and discharge was also issued and revised often to accommodate changed perceptions and strategies. The guidelines were accompanied by training modules.

The additional investments in the health sector and the levels of preparedness contributed to the high morale of the health workers that is a sharp contrast to the sense of helplessness and unrest among health workers in many of the elite medical centres in the country. From the beginning, the health minister of Kerala, who had led the Nipah response from the front, provided strong and visible leadership to the health department. The level of confidence the health system displayed in dealing with the epidemic and the trust the people of Kerala had in the government health system rose from their competence demonstrated in handling the Nipah crisis and the aftermath of two floods.

Social Foundation

While the health system remains the most significant contributor to Kerala's health status, demand-side factors such as female literacy, empowerment of Dalits and other socially disadvantaged groups other than tribals, high levels of political mobilisation, active involvement of panchayats and municipalities, emergence of civil society groups, high salience of health issues in political discourse and an active media have been important ingredients in ensuring that health remained important to the people and government of the state. It has also ensured that the epidemic prevention efforts are supported by other actors in Kerala society.

The state government also tried to actively tap the synergies springing from coordinated action with the social actors and tap the abundant social capital in the state. The high density of associational relations such as non-governmental organisations, religious groups, trade unions, libraries, clubs, and professional associations who get involved in social issues has been identified as the source of social capital (Heller 1996). It has also been linked to the reduction of poverty in the state (Morris 1998). These initiatives exist independent of government interference and complement the government's efforts. They were on the scene during the Nipah crisis and the floods, and now have mobilised themselves to support the COVID-19 response too.

Transparency and Trust

The management of health emergencies requires active collaboration by the population, who may be required to make unpleasant sacrifices. To achieve such collaboration, people must have trust in their government (Scott et al 2016). Traditionally, trust in the government has been high in Kerala. This was augmented by the success in managing many crises in recent years. So messaging on social distancing and self-quarantine were viewed seriously by the people.

During the times of crises, people value reliable information even if it is bad. The Willingness of the government to share information with the people constantly increases transparency and generates trust. The chief minister of Kerala, after reviewing the data and discussing policy decisions, shares the important information with the people every day through a live press conference, which has been the most watched event in recent days in Kerala. The government has borne the entire cost of testing and treating COVID-19 in the state.

These actions have earned the trust of the people, which creates an environment for people to cooperate with the

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government, for they are prepared to subject themselves to restrictions imposed by the government to control the epidemic. It is generally felt that the government has been successful so far. The real test of this trust will come if and when the situation becomes serious and the state's capacities are in danger of being overwhelmed.

Decentralised Planning

The leadership provided at the ground level by the local government institutions, which have been empowered with funds, functions, and functionaries, played a major role in coordinating activities in other sectors with health interventions and also supporting health initiatives at the local level. The year 2020 also marks the 25th anniversary of the People's Plan Campaign for democratic decentralisation that has made Kerala a forerunner (Thomas Isaac and Franke 2000). In addition to investing their own resources in augmenting human resources, drugs, and equipment, and launching into areas that were ignored by the formal health system such as palliative care and rehabilitation, local governments have been active in prevention and control of infectious diseases and disaster management.

Disaster management has been and will continue to be a centralised hierarchical process. But, the experience in Kerala demonstrates the importance of local-level planning, mobilisation, and intervention within the larger macro framework, which ensures equity and access in mitigation efforts. A formal recognition of this new responsibility came with the government order empowering the local governments as the agency to prepare the local-level disaster management plan. The panchayat/municipal-level disaster management reports analyse recent natural disasters, particularly floods, and then propose medium-term mitigation projects, which would be taken up by the local governments or proposed to the higher tiers of government. They would also include an immediate action for response in case such a disaster recurs. The state government has also been organising a volunteer force, with at least one volunteer for 100 people, to be coordinated by the local governments during disasters. The management of COVID-19 fit into this framework for disaster management of panchayats and municipalities.

Local Governments and Health

People's planning was launched with a declaration to transfer 30%–35% of state plan funds as untied funds to local governments. Health has been a major beneficiary of this financial devolution. Indeed, an important rationale of the large transfer was to improve the quality of government services in education and health. It was expected that the local-level plans would reflect people's priorities more effectively, which in Kerala would definitely benefit the health sector. During the initial years, results were mixed. The overall investment in state and local plans for health doubled from 2.2% to 4.5% (Thomas Isaac and Franke 2000).

The lacklustre performance of the health sector in the initial years of the decentralised planning was partly due to the reluctance of the major power holders in the health sector and doctors to engage with local governments. They were also reluctant to shoulder additional duties; that of being the implementation officers of local health projects, particularly, those involving construction activities. Over time, this attitude changed and medical personnel began to be actively involved in the local planning process. They realised that it was much easier to get their priorities accepted by the local elected representatives than the bureaucratic hierarchy. There has been a large body of literature that has attempted to evaluate the impact of decentralisation on healthcare. Although there is always scope for improvement, the studies, by and large, support the thesis of positive impact (Elamon et al 2004; Chathukulam 2016; Azeez 2015; John and Jacob 2016; Chandran and Pankaj 2014).

The involvement of the local governments in healthcare at the primary level has witnessed dramatic improvement after the launch of the Aadram Mission. Local governments contribute to improvement and maintenance of the buildings of PHCs and subcentres, purchase of drugs, and medical equipment, employ doctors, nurses, and paramedical staff on contract, and supplement the honorarium of ASHA (Accredited Social Health Activist) workers. They also provide the bridge between the health department and civil society organisations such as palliative organisations, voluntary food programmes and Kudumbashree health volunteers. They have an important role in geriatric care, support the differently abled, and finance the special schools for children with cognitive disabilities. They are in charge of prevention of vector and waterborne infectious diseases. Given the high level of involvement of local governments in health and related sectors, it was only natural that they play an important role in the fight against COVID-19.

On 20 March 2020, the involvement of local governments was formalised through a government order. It listed generation of awareness about COVID-19 and "Break the Chain" movement, sanitation, support for persons in isolation, ensuring availability of essential items, and documentation of prevention efforts including preparation of an inventory of medical and other resources and a list of the number of persons who needed additional support as the responsibility of local governments. It also listed the functions of different levels and office-bearers.

Beyond the above formal assignments, what brought out the strength of the local bodies were the community kitchens to provide food to the needy that sprung up in less than three days across the state. They were set up in closed-down hotels, school kitchens, and marriage halls. Most of the provisions needed, such as rice, pulses, condiments, vegetables, and even meat and fish, were mobilised through donations. Apart from one or two cooks, every kitchen was run by a large number of volunteers as kitchen helpers, parcel makers, and distributors. At its height, the community kitchens were serving more than five lakh meals per day. For persons who could not come to the kitchens, food was delivered at home.

It was possible to scale up the operations so effectively in such a short time because of Kudumbasree, a network of women's neighbourhood groups (Kannan and Raveendran 2017). They have a strong tradition of involvement in poverty alleviation programmes. They were already operating 946 catering units and 1,479 café units. There were also palliative care groups that provided free food at the

doorstep to the destitute and bedridden persons. The local governments drew on their experience for setting up their community kitchens. As the economy exits from the lockdown, the community kitchens will also withdraw, but most of them would be taken forward as budget hotels by Kudumbasree women providing meals at ₹20 or even for free to the needy.

Yet another responsibility of the local government has been monitoring the camps of migrant workers and ensuring their food and medical treatment. Kerala accounted for 65% of the 23,567 camps and 47% of the 6.5 lakh migrant workers sheltered in them in India.[4] The local government representatives and officials visit the camps, check sanitation, provide food kits in some locations and, in some cases, even made available free mobile chargers and games like chess and carrom to keep them engaged. A good practice followed is that by Uralunkal Labour Contract Cooperative Society, the largest construction cooperative in India with nearly 3,000 workers, the majority of whom are migrant workers. The migrant workers are encouraged to take membership in the society so that they get full benefits of being a member (Thomas Isaac and Mitchelle 2017). When the crisis came, those workers who wanted to return home were sent back at the expense of the cooperative itself in special buses. While the situation of the migrant workers is far from satisfactory, the local governments tried to make it as bearable as possible.

In addition to health and local self-government departments, similar guidelines were also issued by other departments, including police, disaster management, and education, on how to support COVID-19 prevention efforts. Such guidelines would not produce the desired results if their implementation was not coordinated and monitored. Performance monitoring and coordination of the functioning of different departments are meticulously reviewed by the chief minister every day and the results of the analysis shared with the people of Kerala.

Exit Strategy

Kerala is now preparing an exit strategy from complete lockdown. An important challenge would be to track and test and where needed, quarantine or treat the expected 5 lakh migrant Malayalees who would be returning from the Gulf and other foreign countries, and also from other states in India. Local governments have been involved in identifying all the potential return migrants in their area and are collaborating with the public works department to find hotels, hostels, unoccupied flats, and large houses to quarantine them. Already accommodation has been identified for 2.5 lakh persons. All the returnees have to be quarantined and tested and those found positive would be isolated and treated. There would be also an option for the return migrants to use hotel accommodation for quarantine on payment.

The second component of the exit strategy is reverse quarantine. All persons above 65 and those suffering from chronic diseases, who are at higher risk of adverse consequences, if infected, will have to stay indoors and, if necessary, in the isolation rooms in the houses. For Kerala, this will be a daunting task with 13.5% of the population above the age of 65 and high incidence of diabetics and hypertension. Quarantining more than 40 lakh people in houses would require big data analytics to draw up regional strategies. Equally important is the local-level planning to provide medicine, counselling and, if necessary, free food to those who are quarantined. Personal hygiene, habits of handwashing, and use of masks will have to be strengthened. Some of the local governments like Aryad Block Panchayat and constituent gram panchayats are already experimenting with reverse quarantine. Using digitised health data of all the citizens, telemedicine, and providing free food, medicines and counselling to the needy, their effort is to ensure that the aged and other vulnerable sections stay home safe.

The third component of the exit strategy would be carefully opening up livelihood activities. The first to open up was agriculture and allied sectors and the cottage and small-scale industry. These sectors are largely within the domain of the local governments. Cultivation of paddy and mixed crops in the coconut homesteads in the state have been declining. Perhaps, the COVID-19 crisis may provide an opportunity to reverse the trend. Even during the lockdown period, vegetable cultivation was being promoted and is going to be taken up on a campaign mode. Peoples' Plan Campaign had succeeded in establishing a large number of aggregation models of participatory small-scale vegetable cultivation. The agriculture department is in the process of drawing up a comprehensive package for agrarian revival in collaboration with the local governments. The reopening of the traditional industries will be paralleled with the programme for promoting new enterprises. The budget for 2020–21 had provided for generating five new jobs in the non-agriculture sector for every 1,000 persons in every local government area.

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) activities constitute an important component of the exit strategy. They would be front-loaded to the maximum extent to provide employment and income to the poor. It has been decided that the focus of the programme will be on desilting and reconstructing about half the 80,000 km canal network in Kerala, which would help to mitigate possible flooding during the monsoons and help with irrigation in the summer. The gram panchayats are the sole agency for the implementation of the MGNREGA works in Kerala and a convergence approach with the local plan is being adopted.

Unlocking the economy is a much larger exercise than local agriculture and industry programmes. It would require concerted action from the central and state governments. The state has already drawn up certain priority sectors such as pharmaceuticals and medical devices industries, biotechnology and information technology sectors, value adding agro-processing industries, and tourism. The new brand image that the state has gained as a safe and resilient region would be utilised to attract investment to these sectors. With the expected heavy return migration, special efforts would also have to be made for the rehabilitation and reintegration of migrants. Large-scale infrastructure investment from resources mobilised through special purpose vehicles like the Kerala Infrastructure Investment Fund Board (KIIFB) will also play a major role in the exit strategy.

Fiscal Crisis

The state government has already appointed two committees, one by the Planning Board and the other by Gulati Institute of

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Finance and Taxation to study the impact of the COVID-19 pandemic on the economy and state finances, respectively. Special packages have to be prepared for each of the industrial sectors. For the micro, small and medium enterprises (MSME) sector as well as the farm sector, the moratorium period should be extended to one year with an interest waiver and the existing loans restructured to provide additional working capital. While the central government has been generous with the tax concessions for the corporates, it has been extremely miserly towards the MSME sector. The conditions imposed for accessing the central government's support for Provident Fund and Employee State Insurance concessions are too unrealistic for most industrial units in Kerala to take advantage of.

The biggest handicap of the state government has been the unprecedented fiscal crisis that it is facing. The state's own revenue has shrunk to one-tenth of the normal and overall revenues, including the central devolution, are insufficient to even pay the monthly salaries. This situation has not deterred the state government from rolling out a ₹20,000 crore COVID-19 package, half of which is essentially direct income transfer to the people under lockdown conditions. This has been largely financed by front-loading the borrowings, the cooperatives, and Kudumbashree microfinance.

At present, we have a strange situation in the country where the central government is following a moderately expansionary fiscal stance while it is forcing states to cut expenditure in times of the pandemic crisis. What one does is neutralised by the other. It is very important that the state governments are also taken into confidence and provided with additional fiscal space by raising the fiscal deficit ceiling to 5%, full payment of the GST Compensation, and a special COVID-19 pandemic grant to neutralise the decline in central devolution.

Conclusions

The "stop the outbreak, treat the infected, ensure essential services, preserve stability and prevent further outbreaks" (STEPP) framework, developed by the United Nations to deal with the Ebola outbreak,[5] has become a standard reference norm for health emergencies. Being a health emergency, health systems will be at the centre of the response. In STEPP, treatment is the exclusive domain of the health department. A comprehensive response will need to go beyond health systems and mobilise the entire society. A large-scale, coordinated humanitarian, social, public health, and medical response will be needed (Farrar and Piot 2014). Kerala's COVID-19 response has passed this test. While the exemplary leadership at the state level in addressing the crisis has been widely noted, our discussion also highlighted the importance of the social capital and the active involvement of the people through local governments that played a significant role in Kerala's success.

The challenge is not over yet. We do not know about the prevalence of the virus in the community that may lead to new clusters developing silently. The large number of expatriates and those from other places in India who are set to come back is yet another major challenge Kerala is gearing up to meet and may adversely impact the disease situation. Till a proper vaccine is discovered or herd immunity develops, people will have to learn to live with the virus. However, Kerala has demonstrated the resilience to handle all but the worst-case scenario, and perhaps, avoid such an eventuality.

NOTES

1 http://origin.who.int/blueprint/priority-diseases/en/, downloaded on 28 April 2020.

2 Reserve Bank of India, *Reserve Bank of India Bulletin*, various issues.

3 See for instance, "How Has Taiwan Kept Its Coronavirus Infection Rate So Low?" https://www.dw.com/en/taiwan-coronavirus/a-52724523, downloaded on 28 April 2020.

4 Coronavirus Lockdown: Kerala Has 69% of India's Government-run Relief Camps for Migrant Workers, https://www.bloombergquint.com/coronavirus-outbreak/coronavirus-lockdown-kerala-has-69-of-indias-government-run-relief-camps-for-migrant-workers, downloaded on 30 April 2020.

5 https://ebolaresponse.un.org/sites/default/files/onr2015.pdf, downloaded on 26 April 2020.

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Community Self-governance in Education

C R BIJOY

The dominant discourse in relation to education of Scheduled Tribes and other so-called weaker sections remains mostly concerned with logistics of providing a package. The inherited colonial dispensation that controls education, its institutions, and governance, is treated as a given absolute. It is to be recognised that not merely education for all, but the democratisation of education lies at the core of justice in education. The struggles for self-determination and self-governance by Adivasis have provided ample legal space to alter the present governance in education to democratise and establish community self-governance in education.

This article draws from a paper presented at the National Seminar on the topic "Educational Development of Tribal People and Internal Migration in the Twentieth Century Malabar, Kerala," at the Pazhassiraja College, Pulpally, Wayanad, Kerala on 28–29 November 2018.

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The status of Scheduled Tribes (STs) in formal education at all levels is the lowest amongst all social groups in the country. At the same time, they continue to be the holders of vast knowledge and skills, often unique, inhabiting a rich natural terrain. They are also subject to development aggression as are, and are disproportionately displaced and marginalised. Their homelands are officially acknowledged to be misgoverned, conflict-ridden, backward, wallowing in development deficit, and neglected in public service coverage (Government of India 2008: 74–76). Yet, they remained relatively free from the feudal and colonial subjugation as compared to the non-tribals, always persistent in their resistance, in order to remain free and self-governing.

Precisely for these reasons, they were brought under the Scheduled District Act, 1874 and later the "Excluded Areas and Partially Excluded Areas" under the Government of India Act, 1935, which excluded them from the purview of British laws. Regional laws too were enacted with similar intent in varying degrees as the Wilkinson Rule, 1837,[1] the Inner Line Permit under the Bengal Eastern Frontier Regulation, 1873,[2] the Santhal Pargana Tenancy Act, 1876, and the Chota Nagpur Tenancy Act, 1908.[3] These were the antecedents for the constitutional provisions of the Fifth[4] and Sixth[5] Schedules under Article 244, the special constitutional provisions, such as Articles 371A and 371G for Nagaland and Mizoram, respectively,[6] state enactments on the lines of the Sixth Schedule with considerably less powers,[7] and state laws to prevent alienation of land and their restoration when alienated (Bijoy 2010).

The history of valiant struggles continued into the post-independence period resulting in the historic laws such as the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA), popularly the village self-rule law, the first law that actually attempts to decolonise and democratise governance, the forerunner to legal reforms that were to follow. These are the STs and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, and Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 that decolonised and brought in a semblance of democratising forest governance and land acquisition. The contours of democracy and governance drawn by the political trajectory of tribal struggles are far superior to what the non-tribals and mainstream India have (Bijoy 2015: 190–204). But the realisation of the potential of self-governance and democracy, even partially, has systematically been subverted by mainstream India along with the Indian state as a norm. Nevertheless, within them are the seeds of a democratic transformation that could very well usher in participatory democracy and self-governance in these critical times.

Policies and Programmes

Significantly, these principles, perspectives, and approach are also embedded in the internationally recognised norms as the International Labour Organization (ILO) Convention 107: Convention concerning the Protection and Integration of Indigenous and Other Tribal and Semi-Tribal Populations in Independent Countries, 1957, to which India is a signatory, and its revision, ILO Convention 169: Convention concerning Indigenous and Tribal Peoples in Independent Countries, 1989, which India refuses to sign, and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), 2007, of which India voted in favour.

The Tribal Commission of 1960–61 (chaired by U N Dhebar), Indian Education Commission of 1964–65 (known as the Kothari Commission), Bhuria Committee 1991, and Scheduled Areas and Scheduled Tribes Commission (Bhuria Commission) 2002–04 have pointed out numerous issues that have hampered

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the provision of modern education to the STs. These include access to education; participation in schooling; non-compliance of the school calendar with the social rhythm, agricultural cycle and festivals of tribal communities; approach of the education system, such as pedagogy, curricula, and syllabi not suitable to tribal life and milieu, and alien medium of instruction, particularly non-adoption of mother tongue up to primary level; inadequate infrastructure, especially educational institutions, and human resources; and support services as scholarships, hostels, facilities, maintenance costs, free school uniforms, etc; supplementary nutrition and mid day meals, etc. The inaccessibility of tribal habitations; lack of awareness, incentives and motivation of the community, the students and those who manage the schools; the systemic social discrimination of tribals; the backwardness of the region and the peoples; and the oppressive and exploitative life conditions they are subjected to, are other recognisable factors.

There has also been no dearth of policy and programme prescriptions, for instance, National Policy on Education, 1986, National Literacy Mission, 1989, Operation Blackboard, 1987, ashram schools from primary classes to Class 12 (under the Tribal Sub-plan), post-matric scholarship and targeted incentives of 1992, District Primary Education Programme, 1994 (in educationally backward districts), National Programme for Nutrition Support, 1995, Sarva Shiksha Abhiyan, 2001 and Rashtriya Madhyamik Shiksha Abhiyan, 2009. Almost two decades after the World Declaration on Education for All, 1990 in Jomtien, Thailand, Parliament enacted the Right of Children to Free and Compulsory Education Act, 2009.

Literacy Rate

It is very significant that the 2011 literacy rate for STs (Table 1), excluding the small union territories, shows that the ST literacy rates of all the eight north-eastern states with an ST share in the population ranging from 12.45% to 94.45%, are significantly higher than the national average. Four of these states are overwhelmingly tribal majority. Five of them are ranked amongst the top 10 states with the highest literacy rates. This is despite this region being the most difficult hilly terrain, in the periphery with hardly any development focus, with a history of widespread militancy since independence and outside the glare of the national mainstream. Significantly, the literacy gap between

Table 1: Literacy Rates of Scheduled Tribes by States/UTs

State/UTs	Population Percentage of STs	Literacy Rate				
		Total	Male	Female	Range	Average
Schedule V states						
Andhra Pradesh	7.00	48.80	56.90	40.90		
Chhattisgarh	30.62	59.09	69.67	48.76		
Gujarat	14.75	62.48	71.68	53.16	48.80–73.64 (total)	58.20 (total)
Himachal Pradesh	5.71	73.64	83.17	64.20	56.90–83.17 (male)	67.42 (male)
Jharkhand	26.21	57.13	68.17	46.20	37.27–64.20 (female)	46.96 (female)
Madhya Pradesh	21.09	50.55	59.55	41.47		
Maharashtra	9.35	65.73	74.27	57.02		
Odisha	22.85	52.24	63.70	41.20		
Rajasthan	13.48	52.80	67.62	37.27		
Telangana	9.30	49.50	59.50	39.40		
Schedule VI and north-eastern states						
Assam	12.45	72.06	78.96	65.10		
Mizoram	94.45	91.51	93.59	89.47		
Meghalaya	86.15	74.53	75.54	73.55		
Tripura	31.76	79.05	86.43	71.59	64.57–91.51 (total)	76.76 (total)
Arunachal Pradesh	68.79	64.57	71.48	57.96	71.48–93.59 (male)	81.08 (male)
Manipur	35.12	72.58	77.33	67.81	57.96–89.47 (female)	63.07 (female)
Nagaland	86.48	80.04	83.11	76.91		
Sikkim	33.80	79.74	85.01	74.27		
Other states						
Bihar	1.28	51.08	61.31	40.38		
Goa	10.23	79.1	87.2 7	71.50		
Jammu and Kashmir	11.91	50.56	60.58	39.73	50.56–79.10 (total)	63.10 (total)
Karnataka	6.95	62.08	71.14	52.98	60.58–87.27 (male)	71.82 (male)
Kerala	1.45	75.81	80.76	71.08	39.73–71.50 (female)	54.26 (female)
Tamil Nadu	1.10	54.34	61.81	46.80		
Uttarakhand	2.89	73.88	83.56	63.89		
West Bengal	5.80	57.93	68.17	47.71		
Union territories						
Andaman and Nicobar islands	7.50	65.40	80.87	69.92	61.85–91.70 (total)	74.44 (total)
Dadra and Nagar Haveli	51.95	61.85	73.62	50.27	73.62–95.69 (male)	84.10(male)
Daman and Diu	6.32	78.79	86.23	71.23	50.27–87.76 (female)	69.80 (female)
Lakshadweep	94.80	91.70	95.69	87.76		
India	8.2	58.95	68.51	49.36		

Source: Census of India (2011).

Table 2: Gap in Literacy Rate of STs Compared to the Total Population

State/UT	2011		
	Total	ST	Gap
Andhra Pradesh	59.77	42.80	16.97
Chhattisgarh	60.21	50.03	10.18
Gujarat	67.99	52.58	15.41
Himachal Pradesh	73.42	64.64	8.78
Jharkhand	55.56	47.44	8.12
Madhya Pradesh	59	41.22	17.78
Maharashtra	72.57	56.01	16.56
Odisha	63.71	43.96	19.75
Rajasthan	55.84	43.09	12.75
Schedule VI and north-eastern states			
Assam	61.46	61.89	-0.43
Meghalaya	60.16	59.73	0.43
Mizoram	77.3	77.33	-0.03
Tripura	76.34	67.17	9.17
Arunachal Pradesh	55.36	54.34	1.02
Manipur	66.83	62.99	3.84
Nagaland	67.85	68.15	-0.30
Sikkim	72.87	71.28	1.59
Other states			
Bihar	50.44	41.53	8.91
Goa	79.91	71.23	8.68
Jammu and Kashmir	56.35	40.29	16.06
Karnataka	66.53	53.89	12.64
Kerala	84.22	67.29	16.93
Tamil Nadu	71.85	47.23	24.62
Uttarakhand	68.22	45.54	22.68
Uttar Pradesh	57.25	65.14	-7.89
West Bengal	67.42	50.30	17.12
Union territories			
Andaman and Nicobar Islands	77.32	65.40	11.92
Dadra and Nagar Haveli	64.95	51.95	13.00
Daman and Diu	77.45	69.70	7.75
Lakshadweep	81.51	81.11	0.40
India	63.07	49.51	13.56

Source: Census of India (2011).

the total population and tribals too is negligible (Table 2, p 42), except for Tripura. Secured tenurial rights over land and forests ensured their economic and social well-being, which is the critical factor in enabling these tribal peoples to access and obtain higher educational status. Consequently too, except for Assam, one would not see migration for wage labour from the North East to other states; instead it would be for higher studies or as employment as professionals.

The central Indian tribal belt is where nine of the 10 Fifth Schedule states, except for Himachal Pradesh, are located. The bulk of the nation's ST population resides in the region, though with only 5.71% to 30% population share in the states. Their literacy rates are mostly lower than the national average, except for Himachal Pradesh whose ST population is small. This is in spite of the fact that this region has long been the site of the biggest industrialisation and is the powerhouse of the nation for energy and water. This is also where development aggression has caused the massive disruption through displacement, particularly from mining and large dams, and where most of the left-wing extremism affected districts are located. Predictably, the literacy gaps between the non-tribals and tribals are quite high (Table 2). Loss of control over land and forests and deprivation have increasingly induced seasonal migration in search of wage labour.

The eight remaining states with the least ST population share of 1.1% to 11.91% too hover around the national average with the significant exception of Goa, Kerala, and Uttarakhand, which have higher literacy rates. However, paradoxically, Kerala and Uttarakhand show a high literacy gap between non-tribals and tribals (Table 2).

The above observations become even more significant in the light of the well-established fact that the traditional self-governing structures of the tribal peoples in the North East are not only strong and functional, but have substantial control over their territories and resources, and form the epicentre of governance recognised by the formal governance structure, with Nagaland and Mizoram having special constitutional provisions, different regions within some of these states coming under the purview of the Sixth Schedule, and the state enactments recognising various forms of autonomy.

In total contrast, the traditional self-governing structures of the tribals in the rest of the country have all but collapsed due to the loss of substantial territories to the state and the outsiders, as well as control over the rest of their homelands. Moreover, PESA, which envisioned empowerment of village self-rule, has not yet been operationalised properly due to blatant violations, non-compliance of the state panchayat raj laws and their rules with PESA, with some states still not even notifying rules, and subject laws not made harmonious with PESA.[8] Therefore, the central Indian states are seen as similar to the rest of the country.

What is seen as applicable to most other human development indices, is also applicable to education. With the view that self-governance is the key to the development of the tribal peoples, the framework in laws, both domestic and international, are examined here to prove that there are enough grounds to extend self-governance to the arena of education. The international instruments of ILO Convention 107 and 169, as well as the UNDRIP seek three types of rights. In some ways, these are reflected in the Constitution and laws.

Access to Education

Parts IV and VI of both ILO Conventions 107 and 169 require provisions of training/education as basic rights to be guaranteed. Article 6 of ILO Convention 107 says that the "level of education of the populations concerned shall be given high priority in plans for the overall economic development of areas inhabited by these populations." Article 21 of ILO Conventions 107 and 169 states that indigenous people should be enabled to reach the same educational levels as the national community. Articles 14(2) and 21 of the UNDRIP guarantee indigenous people the right to education without discrimination. Article 14(3) recognises the right "to have access, when possible, to an education in their own culture and provided in their own language."

Education was originally a state subject in the Constitution. It came under the concurrent list with the amendment to Article 42 in 1976, enabling the central government to legislate on matters related to education. Article 45 requires the state to provide for early childhood care, and education for all children until the age of six years. In the Constitution, as originally drawn, a time limit of 10 years from the date of independence was provided, but seeing as the state was unable to fulfill this obligation, in 2002, the provision was amended by way of a constitutional amendment. The 86th amendment[9] in 2002 made education a fundamental right. Eight years later, the Right of Children to Free and Compulsory Education Act, 2009 was enacted to provide free and compulsory education to all children in the age group of 6–14 years from 1 April 2010. Article 46 of the Constitution, one of the "directive principles of state policy" requires the state to "promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes (SCs) and the STs, and shall protect them from social injustice and all forms of exploitation." Article 15(4) of the Constitution requires the state to make special provisions, for the advancement of SCs, STs, and other "socially and educationally backward classes of citizens." This has resulted in affirmative action in favour of SCs and STs, mostly admission quotas in higher educational institutions, relaxation in admission requirements for easier access, and quotas in the legislatures, local government bodies, and in government employment.

Appropriateness of Education

ILO Convention 107 adopted an "integrationist" approach where education and training "will help [indigenous] children to become integrated into the national community" (Article 24). Parts IV and VI on vocational training and education respectively also require adaptation of education and training programmes to the special needs of indigenous communities, and that education in the mother tongue can be discontinued at higher levels (Articles 17[3] and 23[2]). However,

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this integrationist and assimilationist approach primarily led to its replacement by ILO Convention 169. Both ILO Convention 169 and the UNDRIP no longer adopt the integrationist approach.

Though preserving the importance on meeting the specific needs of indigenous communities (for example, Articles 22, 23 and 27[1] of ILO Convention 169), these do not include any reference to the integration with the "national community." On the contrary, Article 8 of the UNDRIP recognises "the right not to be subjected to forced assimilation or destruction of their culture" and the states are to "provide effective mechanisms for prevention of, and redress" for any act that deprives them "their integrity as distinct peoples, or of their cultural values or ethnic identities," and "their lands, territories or resource," and against "any form of forced population transfer … forced assimilation or integration … propaganda designed to promote or incite racial or ethnic discrimination directed against them." Article 15(1) states that "the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education."

The National Policy on Education (NPE), 1986 wanted the educational materials to be prepared in tribal languages at the primary level, and to the regional language at higher levels; "educated and promising ST youths will be encouraged and trained to take up teaching in tribal areas," and the curriculum should include "awareness of the rich cultural identity of the tribal people as also of their enormous creative talent." Article 350A of the Constitution also requires that every state government should ensure that primary school instruction for children of "linguistic minorities" should be in their mother tongue. But this has not been adopted on the grounds of feasibility and viability of introducing and sustaining such a change.

Institutions of Education

Acknowledging that assimilationist and integrationist approach is to be replaced with the principle of self-determination, diversity, and pluralism, the control over education and training institutions is now a well-recognised principle in international instruments. All provisions such as Article 27(3) that relate to training and education rights in ILO Convention 169 state that any such programme has to be designed in consultation with, or with the cooperation of, indigenous communities. Article 14 of UNDRIP states that indigenous peoples have the right "to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning," and "right to all levels and forms of education of the state without discrimination."

While there is no overarching framework policy or law to recognise and ensure the right of STs to control the institutions of education, and hence being able to determine its content and methods, there are area-specific laws that are based on the recognition of this right. Primarily, Article 30 of the Constitution guarantees the right of minorities (particularly those linguistic and religious in nature) to establish and administer their own educational institutions. Neither have any ST communities ever used this provision nor has this provision's applicability to ST communities been judicially tested.

In the Sixth Schedule of the Constitution,[10] the autonomous district councils in the North East have control over primary education and in some cases over secondary education. The district council of an autonomous district could establish primary schools and manage them with the prior approval of the governor, and prescribe the language and the manner in which primary education shall be imparted. The governor can appoint a commission to inquire into and report on the administration of autonomous districts and autonomous regions generally and specifically the provision of education amongst others. The Autonomous Councils of the North Cachar Hills and Karbi Anglong in Assam have been granted additional powers to make laws with respect to other matters like secondary education.

Under the Nagaland Village and Area Council Act, 1978, every village has a village council. Its main function under Section 12(1) includes, among others, to formulate development schemes in the village and oversee the maintenance of welfare activities, including education, besides water supply, forest, and power. Nagaland Communitisation of Public Institutions and Services Act, 2002 is a unique law in the country where the communities manage public institutions and services. This has been extended to cover primary and middle schools besides grass-roots health services and electricity management. The village council elects a village education committee, or common education committee in the case of more than one village, which has the responsibilities to manage, direct, supervise and control the schools, disburse the salaries of the teachers, enforce the "no work, no pay" policy, source funds from the government, grant leave to teachers and take disciplinary actions. Their recommendations are taken into consideration while transferring or retaining of teachers within their jurisdiction. They can also appoint substitute teachers for a period of three months to one year. This got operationalised in 2004 making remarkable qualitative changes.[11]

The 73rd Amendment of Article 243 in 1992, required the state legislature to endow the panchayats with the powers and authority to enable them to function as institutions of self-government in 29 subject matters listed in Eleventh Schedule that included (i) education including primary and secondary schools (item 15), (ii) adult and non-formal education (item 18), and (iii) libraries (item 28). The powers included planning and implementation, which effectively meant the transfer of functions, funds, and functionaries to the panchayats at the appropriate level. The PESA radically moved ahead to empower the gram sabha to "approve of the plans, programmes, and projects for social and economic development before such plans, programmes and projects are taken up for implementation by the panchayat at the village level" (Section 4[e]), "issue utilisation certificate for funds used by the Panchayat," (Section 4[f]), "exercise control over institutions and functionaries in all social sectors" (Section 4[m][vi]), which implicitly includes educational institutions

within the jurisdiction of the village, and "control over local plans and resources for such plans, including tribal sub-plans" (Section 4[m][vii]). Moreover, the structures above are not to "assume the powers and authority of any panchayat at the lower level or of the gram sabha" (Section 4[n]) and in addition, the Sixth Schedule pattern is to be adopted for "the administrative arrangements in the panchayats at district levels in the Scheduled Areas" (Section 4[o]).

Way Forward

The struggles of indigenous people across the world and within the country have led to the recognition of self-determination and self-governance at the national and international levels, and also paved the way for international instruments and domestic laws embedded in democratising and deepening democracy. These have produced meanings and frameworks far superior in nature than are available to the mainstream society, the adoption of which could drastically address the historic injustices perpetrated on the tribals. This extends to education as well, besides other sectors of well-being. As seen above, the existing laws, in fact, provide ample legal space to alter the present governance in education to establish community self-governance in education. The fact remains though that this has to be politically fought for.

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NOTES

1 This resulted from the failure of the British to subjugate the Kol insurrection in Chotanagpur during 1831–1833. The Ho Adivasis of Kolhan area in present-day West Singhbum in Jharkhand were granted the continuance of the Manki Munda system, their traditional system of governance while under the British rule.

2 In Arunachal Pradesh, Mizoram, hill areas of Manipur and Nagaland to regulate entry of outsiders and bars acquiring "any interest in land" by outsiders or residents of other parts of India.

3 These tenancy laws were enacted originally to protect lands of STs with stringent regulations regarding transfer of land to others, both individual as well as common rights and also customary rights and practices regarding land use and holding over forests.

4 Prohibition or restriction of the transfer of land "by or among members of the Scheduled Tribes" and regulation of the allotment of land to members of the STs in Scheduled Areas through appropriate regulations under the Fifth Schedule of Article 244(1) in any state other than the states of Assam, Meghalaya, Tripura and Mizoram.

5 Regulate allotment, occupation or use, or the setting apart of land, other than any land which is a reserved forest for purposes likely to promote the interests of the inhabitants of the areas notified as "Tribal Areas" under the Sixth Schedule of Articles 244(2).

6 Protects these tribal majority states from the application of any act of Parliament regarding ownership and transfer of land and its resources unless these states take independent decisions on them, safeguarding the religious and social practices of the communities that inhabit these states.

7 Rabha Hasing Autonomous Council, Sonowal Kachari Autonomous Council, Mising Autonomous Council, Lalung (Tiwa) Autonomous Council, Deori Autonomous Council and Thengal Kachari Autonomous Council in Assam, Senapati Autonomous District Council, Sadar Hills Autonomous District Council, Ukhrul Autonomous District Council, Chandel Autonomous District Council, Churachandpur Autonomous District Council, and Tamenglong Autonomous District Council in Manipur, and the Ladakh Autonomous Hill Development Council in Jammu and Kashmir. In Nagaland, there are tribal councils for each tribe—area council, range council and village council.

8 All the 10 states having Scheduled Areas enacted their respective confirmatory acts though not in full conformity with the central act. For a detailed compilation on the status of compliance of states with PESA, see http://pesadarpan.gov.in/en_US/legislations. Only six states, namely Andhra Pradesh, Gujarat, Himachal Pradesh, Maharashtra, Rajasthan and Telangana belatedly notified rules to operationalise the state amendments to PESA, but where effective implementation is absent. The structure above the gram sabha patterned on the Sixth Schedule is not yet formulated in any of these states. The state legislations on subject laws are largely not harmonised with the PESA provisions of the state, though amendments have been made to some in Madhya Pradesh and Maharashtra. Parliament has not enacted any legislation for the municipal areas in Scheduled Area as required under the Constitution leading to a legal vacuum where municipal laws applicable to the non-scheduled area are applied. Panchayats are upgraded to municipalities in the Scheduled Area taking them out of the purview of PESA.

9 (i) Insertion of Article 21A (Right to education): "The state shall provide free and compulsory education to all children of the age of 6 to 14 years in such manner as the state may, by law, determine."

(ii) Substitution of Article 45, from "Provision for early childhood care and education to children below the age of six years" to "The state shall endeavour to provide early childhood care and education for all children until they complete the age of six years."

(iii) Amendment of Article 51A, after Clause (J), added "(k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of 6 and 14 years."

10 The Sixth Schedule Areas are the North Cachar Hills District, the Karbi Anglong District and and the Bodoland Territorial Areas District in Assam, the Khasi Hills District, the Jaintia Hills District and the Garo Hills District in Meghlaya, Tripura Tribal Areas District in Tripura and the Chakma District, the Mara District and the Lai District in Mizoram.

11 Nagaland was conferred the United Nations Public Service Award in 2008 in the category of fostering participation in policymaking decisions through innovative mechanism resulting in marked educational improvement. See, for instance, *Outlook* (2008).

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Access to Credit in Eastern India

Implications for the Economic Well-being of Agricultural Households

ANJANI KUMAR, VINAY K SONKAR, SUNIL SAROJ

The impact of access to credit on the economic well-being of agricultural households in eastern India is empirically evaluated. Using a large, farm-level data set from eastern Indian states and a multinomial endogenous switching regression model, the findings reveal that access to credit increases economic well-being, and farmers availing credit from formal sources are better off than those availing credit from informal sources. Finally, access to credit affects recipients heterogeneously, implying that credit policies should be adaptable to different agricultural household groups.

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Access to appropriate credit reduces poverty and increases the income of agricultural households (Binswanger and Khandker 1995; Carter 1989; Carter and Wiebe 1990; Feder et al 1990; Pitt and Khandker 1996, 1998; Khandker and Faruqee 2003; Guirkinger 2008; Awotide et al 2015; Narayanan 2016; Luan and Bauer 2016; Kumar et al 2017). Credit helps farmers buy necessary inputs, such as seeds, fertilisers, pesticides, animal feed, and irrigation services, and invest in long-term productive assets for agriculture and livestock. However, many agricultural households have limited access to credit. Recognising the importance of the agricultural sector in the national economy, the Government of India (GoI) has undertaken a number of initiatives to strengthen the agricultural credit system. These include the nationalisation of commercial banks in 1969 and 1980; establishing regional rural banks (RRBs) in 1975 and the National Bank for Agricultural and Rural Development (NABARD) in 1982; setting up special agricultural credit plans (SACP) in 1994–95 and the Kisan Credit Card (KCC) Scheme in 1998–99; doubling the SACP within three years (2004); establishing the agricultural debt waiver and debt relief scheme in 2008, the interest subvention scheme in 2010–11, and the Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2014; and extending KCC facilities to livestock and fish farmers in 2018. These initiatives have had a positive impact on the flow of agricultural credit (Ghosh 2005; Golait 2007; Kumar et al 2010; Mohan 2006; Hoda and Terway 2015; Kumar et al 2015), and the ratio of agricultural credit to agricultural gross domestic product (GDP) has increased from 10% in 1999–2000 to about 43% in 2016–17 (GoI 2018). However, about half of agricultural households still have no access to credit services (Kumar et al 2017). Limited access to credit squeezes investment in agriculture and other productive activities (Udry 1994). Lack of credit is regarded as one of the crucial reasons for poor households remaining poor (Collins et al 2009).

While inadequate access to credit is a major concern in India in general, the situation is worse in the eastern region of the country. Previous studies have identified inadequate access to credit as one of the primary impediments to agricultural development in eastern India (Joshi and Kumar 2017). However, the source of credit is equally important as some of it may be offered at an exploitative rate of interest. It is well-documented that the rural credit market in India is characterised by the coexistence of formal and informal credit agencies. Formal

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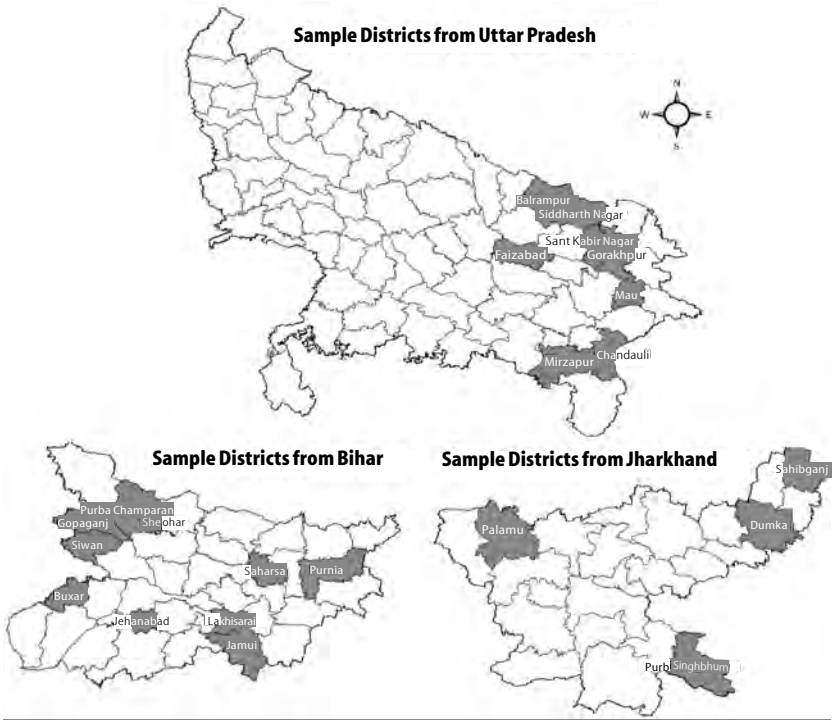
Figure 1: Sample States and Districts



Source: Authors' selection.

credit agencies include public and private banks, RRBs, post offices, and cooperative banks, while informal agencies comprise moneylenders, loans from friends or relatives, agricultural traders, and commission agents. Formal and informal sources have different implications for agricultural households' welfare, but little empirical evidence has been derived from comparative analyses of the impacts of different sources of credit.

Against this background, and with the help of a large field survey conducted in the eastern states of India during 2018, this study aims to contribute to the literature on the comparative impact of different sources of credit. The study focuses on two specific objectives: first, the factors associated with access to credit from different sources (formal and informal) are examined, and second, the impact of different sources of agricultural credit are analysed.

Data and Descriptive Analysis

This study uses observational data from a 2018 field survey of 1,940 agricultural households from Bihar, Jharkhand, and eastern Uttar Pradesh, in eastern India. Of these, 890 households were from Bihar (45.88%), 698 from eastern Uttar Pradesh (35.98%), and the remaining 352 were from Jharkhand (18.14%). The number of sample households in a state was allocated in proportion to the rural population in that state, with Bihar having the highest rural population among the surveyed states. We randomly selected 10 districts from Bihar, eight districts from eastern Uttar Pradesh, and four from Jharkhand (Figure 1 shows the location of selected districts). We then randomly selected two blocks from each district, and from each block, again, randomly selected two villages. Finally, we randomly selected 30 households to be surveyed from each village. The survey instruments collected information on resource endowments (household, agricultural, business, and financial) as well as on access to, and use of, a wide variety of formal and informal financial institutions, such as commercial banks, cooperatives, self-help groups (SHGs), microfinance institutions (MFIs), moneylenders, friends, and relatives. The data also provided detailed information on household demographics, education, and other characteristics. These data provided rich and detailed information about households and financial intermediaries and thus are particularly well-suited for our analysis. We now turn to a brief description of some of the salient features of the data.

Table 1 reports the distribution of sample farmers according to different credit sources (formal and informal). About 49% of agricultural households did not use credit (F_0I_0), and among those who did use it, the majority used credit from only one source. About 24% of agricultural households accessed credit from formal sources, while 21% accessed it from informal sources. Only 6% of agricultural households accessed credit from both formal and informal sources (F_1I_1).

The study sample consisted of 1,940 agricultural households, 954 (49%) of which had not accessed any credit during the previous year, while the remaining 986 households (51%) had done so. Among agricultural households that had accessed credit, the average amount that had been borrowed during the year previous to the survey was ₹17,448. Of this, 62% was borrowed from formal sources and 38% from informal sources (Table 2). Among formal sources, public sector commercial banks were the dominant players, providing 63.5% of the formal credit.

Table 1: Credit Sources and Sample Distribution

	Formal		Informal		Number of Households	Percentage of Total Households
	F_0	F_1	I_0	I_1		
F_0I_0	x		x		954	49.2
F_1I_0		x			458	23.6
F_0I_1				x	410	21.1
F_1I_1		x		x	118	6.1

Source: International Food Policy Research Institute and Indian Council of Agricultural Research (IFPRI–ICAR) credit survey.

Table 2: Borrowing Patterns among Sample Agricultural Households

	Average Amount of Borrowing (₹/household)					
	Borrowing Households			All Households		
States	Formal	Informal	Total	Formal	Informal	All
Bihar	24,892	25,758	50,649	11,663	12,069	23,732
	(49.1)	(51.9)	(100.0)	(49.1)	(51.9)	(100.0)
Eastern UP	50,649	17,241	67,890	15,822	5,386	21,207
	(74.6)	(25.4)	(100.0)	(74.6)	(25.4)	(100.0)
Jharkhand	19,545	14,254	33,799	4,282	3,123	7,404
	(57.8)	(42.2)	(100.0)	(57.8)	(42.2)	(100.0)
Average	31,695	19,084	50,779	10,589	6,859	17,448
	(62.4)	(37.6)	(100.0)	(62.4)	(37.6)	(100.0)

In the second and third columns, the figure in parentheses indicates the percentage of total borrowing households; UP = Uttar Pradesh
Source: IFPRI–ICAR credit survey.

They were followed by RRBs (13.7%), SHGs (10.2%), and MFIs (6.1%). Private sector commercial banks, private sector finance companies, and cooperatives provided the remaining 6.5% of formal credit to agricultural households in eastern India (Appendix A1, p 53). Moneylenders (56.5%) were the largest source of informal credit, while friends and relatives (who usually do not charge interest or charge lower interest rates) provided 41.3% of informal credits in the study area. Agricultural traders and commission agents accounted for a negligible share of the informal credit accessed in the eastern states of India. Interest rates charged by formal and informal sources showed a considerable variation. The average annual interest rates charged by formal and informal agencies were 12% and 27%, respectively. There was also a significant variation in the interest rates charged within the formal and informal sources, ranging from 5.8% charged by cooperatives to as high as 24% charged by private commercial banks and private finance companies. Interest rates charged by SHGs and MFIs hovered at around 20%. Among the informal sources, the highest annual interest rates were charged by moneylenders (37%), followed by commission agents (36%), and friends and relatives (7.8%).

Table 3: Purpose of Taking Credit (%)

Purpose of Credit	Formal	Informal	Combined
Farming	69.5	27.3	52.0
Non-farming	8.3	2.1	5.0
Repayment of debt	1.8	0.5	1.3
Education	0.7	2.1	1.5
Medical treatment	4.4	25.3	13.3
Housing	6.1	11.9	8.2
Other household expenditures	9.2	30.9	18.7
Total	100.0	100.0	100.0

Source: IFPRI–ICAR credit survey.

Table 4: Descriptive Statistics

	Non-borrower	Borrower			All
		Formal	Informal	Both	
Farm income (₹/ha)	2,54,463.64 (1,79,453.97)	2,68,485.09 (1,85,252.01)	2,89,267.11 (2,06,921.97)	3,28,778.92 (2,25,218.54)	2,69,649.44 (1,90,830.63)
Rice yield (q/ha)	36.12 (13.62)	36.39 (12.8)	36.77 (13.07)	37.62 (12.37)	36.41 (13.23)
Wheat yield (q/ha)	29.28 (10.34)	29.65 (8.83)	29.43 (8.99)	30.55 (9.35)	29.47 (9.68)
Age (years)	52.81 (12.75)	50.85 (12.45)	49.51 (11.92)	51.01 (12.11)	51.54 (12.53)
Household size (number of people)	7.57 (4.07)	7.22 (3.59)	7.35 (3.62)	7.04 (2.99)	7.41 (3.81)
Operational land (ha)	0.86 (0.99)	1.23 (1.38)	0.81 (0.70)	1.20 (1.16)	0.96 (1.07)
Scheduled Caste and Scheduled Tribe (%)	19.28 (39.47)	18.34 (38.74)	28.29 (45.09)	20.33 (40.42)	21.03 (40.76)
Other Backward Castes (% of households)	60.06 (49.00)	54.15 (49.88)	59.02 (49.24)	59.32 (49.33)	58.40 (49.30)
Other castes (% of households)	20.65 (40.50)	27.51 (44.71)	12.68 (33.32)	20.34 (40.42)	20.57 (40.43)
Education (years)	5.22 (4.95)	6.71 (5.16)	4.10 (4.69)	5.72 (5.03)	5.36 (5.03)
Possessing a social safety net card (% of households)	79.45 (40.42)	81.00 (39.27)	87.56 (33.04)	83.90 (36.91)	81.80 (38.59)
Availing of loan waiver (% of households)	79.14 (40.65)	89.96 (30.09)	80.73 (39.49)	88.98 (31.44)	82.63 (37.90)
Aware of direct cash transfer (% of households)	70.86 (45.46)	82.97 (37.63)	77.56 (41.77)	89.83 (30.35)	76.29 (42.54)
Aware of Pradhan Mantri Fasal Bima Yojana (% of households)	47.90 (49.98)	61.79 (48.64)	41.71 (49.37)	59.32 (49.33)	50.57 (50.01)
Aware of Mahatma Gandhi National Rural Employment Guarantee Act (% of households)	91.30 (28.20)	93.45 (24.77)	94.15 (23.50)	94.07 (23.72)	92.58 (26.22)
Employed under MGNREGA (% of households)	14.68 (35.40)	17.47 (38.01)	18.54 (38.91)	22.03 (41.62)	16.60 (37.22)
Association with a political party (% of households)	5.77 (23.32)	10.48 (30.66)	5.61 (23.04)	9.32 (29.20)	7.06 (25.63)
Share of income from non-farm activities (%)	48.31 (28.23)	42.67 (29.55)	45.71 (27.26)	44.97 (26.80)	46.23 (28.34)
Share of income from remittances (%)	29.45 (45.61)	20.09 (40.11)	32.2 (46.78)	26.27 (44.20)	27.63 (44.73)
Possessing an account through the Pradhan Mantri Jan Dhan Yojana (% of respondents)	31.66 (46.54)	33.19 (47.14)	46.34 (49.93)	49.15 (50.21)	36.19 (48.07)
Have sought information from any source (% of respondents)	38.68 (48.73)	46.29 (49.92)	42.93 (49.56)	51.69 (50.18)	42.16 (49.40)
Own livestock (% of households)	79.03 (40.72)	84.93 (35.81)	84.14 (36.56)	84.74 (36.1)	81.85 (38.54)
Number of observations	954	548	410	118	1940

Standard errors in parentheses; ₹/ha = (Indian) rupees per hectare; q/ha = quintal per hectare.
Source: IFPRI–ICAR credit survey.

In general, agricultural households used credit for multiple purposes, such as farming and non-farming investment, household consumption expenditures, education, medical treatment, and housing. The pattern of use of formal and informal credit differed significantly. About 70% of formal credit was used for farming activities, while only 28% of informal credit was used for farming. The highest proportion of informal credit (25%) was used for medical treatment (Table 3).

Table 4 presents the descriptive statistics of the key variables of interest. The average household size was about seven people and the average age of heads of households was about 52. Agricultural households had an average operational landholding of 0.96 hectares (ha). About 97% of households were headed by males, and the majority of respondents were literate (62%) and had about five years of education. Other Backward Castes (OBCs) accounted for 58% of the agricultural households, followed by Scheduled Castes (SCs) and Scheduled Tribes (STs) who constituted 21% of the sample households. The remaining 20.6% were from a variety of other castes. About 82% of households possessed ration cards and almost all agricultural households had bank accounts. About 51% of agricultural households had heard of the Pradhan Mantri Fasal Bima Yojana (PMFBY) but the use of the crop insurance was quite low (only 5%). Twenty-eight percent of the sample households received remittances. The awareness level of rural agricultural households was quite high, with about 76% being aware of the direct benefit transfer scheme, about 93% being aware of

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the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), about 83% being aware of the loan waiver scheme, and 7% being actively associated with a political party. The agricultural households had an annual per hectare farm income of ₹2,69,649, and yields of rice and wheat crops were 36.4 and 29.5 quintals per hectare (q/ha) respectively.

Table 4 further compares the means of selected variables across different categories of borrowing and non-borrowing households. The difference in household characteristics of these groups are of interest as they help explain the variations in access to credit. However, the results in Table 4 cannot be used to make inferences about the impact of credit on farm income and productivity without controlling for other confounding factors.

Methodology

The main aim of this study is to assess which sources are most effective in improving farmers' welfare. To this end, we estimate the impact on the economic welfare of agricultural households of various choices of formal and informal credit.

Multinomial endogenous switching regression (MESR): We have taken income and agricultural productivity as indicators of the economic welfare of agricultural households. Income and productivity have been widely used as a proxy for household welfare in a number of previous studies (Kumar et al 2017; Li et al 2011; Arouri et al 2015; Wetterberg 2007). However, the identification of the cause and effect relationship between credit sources, and potential outcome indicators is complex due to an endogeneity bias, as we cannot observe the counterfactual. As mentioned earlier, farmers can avail credit from multiple sources and the selection of any source is based on the farmer's expected net return subject to the constraints. Access to credit is therefore based on an individual's choice and may be correlated with unobservable characteristics that would also affect his performance in farming. The precise estimation of impacts therefore necessitates controlling for both observable and unobservable characteristics through random selection of individuals or households for treatment. Several methods have been proposed and used to deal with such issues and are documented in the literature, ranging from instrumental variable methods to experimental and quasi-experimental methods. We employ an MESR framework to estimate the parameters. This framework has the advantage of evaluating individual as well as alternative combinations of practices. It also captures both self-selection bias and the interaction between choices of alternative practices (Mansur et al 2008; Wu and Babcock 1998). In the first stage, the impact of each combination of credit sources is modelled using a multinomial logit model, while recognising the interrelationships among the credit-source choices. In the second stage, the impacts on outcome variables of each combination of the credit sources are evaluated using ordinary least squares (OLS) regression with a selectivity correction term from the first stage. For identification, we use the distance of the bank from the village as an instrument variable. We checked the validity of the instrument and conducted an admissibility test (Di Falco at al 2011; Di Falco and Veronesi 2013) to confirm that this variable jointly affects credit sources and, thus, does not affect our outcome variables.

We assume that agricultural households aim to maximise their income and productivity (Y_i) by comparing the positive return provided by m alternative credit sources. The requirement for agricultural household i to choose credit source j over any alternative source m is that $Y_{ij} > Y_{im} \neq j$, or equivalently, $\Delta Y_{im} = Y_{ij} - Y_{im} > 0\ m \neq j$. The expected outcome variable Y^*_{ij} that the agricultural households derive from selection of credit source j is a latent variable determined by observed characteristics (X_i) and unobserved characteristics ($\in_{ij}$),

$$Y^*_{ij} = X_i\beta_j + \in_{ij} \quad \ldots (1)$$

where X_i is a vector of observed exogenous variables (socio-demographic characteristics, social and physical capital, social safety net, and location characteristics). Let l be an index that denotes the agricultural household's selection of credit source, such that:

$$I = \begin{cases} 1 \text{ iff } Y^*_{i1} > \max(Y^*_{im}) \text{ or } \eta_{i1} < 0 \\ \qquad\qquad m \neq j \\ \qquad \ldots \text{ for all } m \neq j \\ j \text{ iff } Y^*_{ij} > \max(Y^*_{im}) \text{ or } \eta_{ij} < 0 \\ \qquad\qquad m \neq j \end{cases} \quad \ldots (2)$$

where $\eta_{ij} = max_{m \neq j}(Y^*_{im} - Y^*_{ij}) < 0$ (Bourguignon et al 2007). Equation 2 implies that the i_{th} agricultural household will select credit source j to maximise the expected positive Y if credit source j provides greater expected positive Y than any other credit source $m \neq j$, that is, if $\eta_{ij} = max_{m \neq j}(Y^*_{ij} - Y^*_{im}) > 0$. Assuming that ϵ are identically and independently Gumbel distributed, the probability that agricultural household i with characteristics X_i will select credit source j can be specified by a multinomial logit model (McFadden 1973):

$$P_{ij} = \Pr(\eta_{ij} < 0 | X_i) = \frac{\exp(X_i\beta_j)}{\sum_{m=1}^{J} \exp(X_i\beta_m)} \quad \ldots (3)$$

The parameters of the latent variable model can be estimated by a maximum likelihood function. In the second stage of the MESR,[1] the relationship between the outcome variables and a set of exogenous variables Z (household characteristics such as age, education, social group, assets, and livestock) is estimated for the selected credit source. In our set of possible credit sources (Appendix Table A1), the base category which "does not borrow credit from any source" is denoted as $j = 1$. In the remaining set of possible credit sources ($j = 2, 3,$ and 4), at least one credit source is selected by the agricultural household. The outcome equation for each possible regime j is given as:

$$\begin{cases} \text{Regime 1}: \ Q_{i1} = Z_i\alpha_1 + \mu_{i1} \text{ if } I = 1 \\ \text{Regime J}: \ Q_{ij} = Z_i\alpha_j + \mu_{ij} \text{ if } I = J \end{cases} \quad \ldots (4)$$

where Q_{ij} refers to the outcome variables of the i_{th} agricultural households in Regime j, and the error terms (μ) are distributed with and $E(u_{ij}|X,Z) = 0$ and $var(u_{ij}|X,Z) = \sigma^2_j$. Q_{ij} is observed if, and only if, credit source j is used, which occurs when $Y^*_{ij} > max_{m \neq j}(Y^*_{im})$. If ϵ and u are not independent, OLS estimates obtained from Equation (4) will be biased. A consistent estimation of α_j requires inclusion of the selection bias correction

terms of the alternative credit source choices in Equation (4). The Durbin and McFadden (DM) model makes the following linearity assumption:

$$E(U_{ij}|\epsilon_{i1} .... \epsilon_{ij}) = \sigma \sum_{m \neq j}^{j} r_j(\epsilon_{im} - E(\epsilon_{im})) \quad \ldots (5)$$

with $\Sigma j_m = 1 r_j = 0$ (by construction, the correlation between the u's and ϵ's sums to zero).

Using this assumption, the equation of the MESR in Equation (7) is specified as:

$$\begin{cases} \text{Regime 1}: Q_{i1} = Z_i\alpha_1 + \sigma_i\lambda_1 + \omega_{i1} \text{ if } I = 1 \\ \text{Regime J}: Q_{ij} = Z_i\alpha_j + \sigma_j\lambda_j + \omega_{ij} \text{ if } I = J \end{cases} \quad \ldots (6)$$

where σ_j is the covariance between the u's and ϵ's. Whereas ω's are the error terms with an expected value of zero and λ_j is the inverse Mills ratio computed from the estimated probabilities in Equation (6) as follows:

$$\lambda_j = \sum_{m \neq j}^{j} \rho_j \left[\frac{\widehat{P_{im}} \ln(\widehat{P_{im}})}{1 - \widehat{P_{im}}} + \ln(\widehat{P_{ij}}) \right] \quad \ldots (7)$$

ρ is the correlation coefficient of the u's and ϵ's. In the multinomial choice setting, there are $J - 1$ selection bias correction terms, one for each alternative credit source. The standard errors in Equation (7) are bootstrapped to account for the heteroscedasticity arising from the generated regressor (λ_j).

Estimation of Average Treatment Effects

The MESR framework is used to examine the average treatment effects on the treated (ATT) by comparing the expected outcomes of each alternative credit source. The challenge of impact evaluation using observational data is to estimate the counterfactual outcome, which is the outcome households could have achieved had they not chosen the one they did. Following Carter and Milon (2005) and Di Falco and Veronesi (2013), we compute the ATT in the actual and counterfactual scenarios as follows:

Adopters with adoption (actual adoption observed in the sample):

$$\begin{cases} E(Q_{i2}|I = 2) = Z_i\alpha_2 + \sigma_2\lambda_2 \text{ (a)} \\ E(Q_{ij}|I = J) = Z_i\alpha_j + \sigma_j\lambda_j \text{ (b)} \end{cases} \quad \ldots (8)$$

$$\begin{cases} E(Q_{i1}|I = 1) = Z_i\alpha_1 + \sigma_1\lambda_1 \text{ (a)} \\ E(Q_{ij}|I = 3) = Z_i\alpha_3 + \sigma_3\lambda_3 \text{ (b)} \end{cases} \quad \ldots (9)$$

Adopters, had they decided not to adopt (counterfactual):

$$\begin{cases} E(Q_{i1}|I = 2) = Z_i\alpha_1 + \sigma_1\lambda_2 \text{ (a)} \\ E(Q_{i1}|I = J) = Z_i\alpha_1 + \sigma_1\lambda_j \text{ (b)} \end{cases} \quad \ldots (10)$$

$$\begin{cases} E(Q_{i2}|I = 1) = Z_2\alpha_1 + \sigma_2\lambda_1 \text{ (a)} \\ E(Q_{ij}|I = 3) = Z_2\alpha_3 + \sigma_2\lambda_3 \text{ (b)} \end{cases} \quad \ldots (11)$$

These expected values are used to derive unbiased estimates of the ATT. The ATT is defined as the difference between Equations (8a) and (10a) or Equations (8b) and (10b). For instance, the difference between Equations (8a) and (10a) is given as:

$$ATT = E[(Q_{i2}|1=2)] - E(Q_{i1}|1=2) = Z_i(\alpha_2 - \alpha_1) + \lambda_2(\alpha_2 - \alpha_1) \quad \ldots (12)$$

The first term on the right-hand side of Equation (12) represents the expected change in the mean outcome attributed to a credit source if an associated agricultural household with a credit source characteristic had the same outcome variable as that of a non-associated agricultural household with a corresponding credit source. The second term (λj) is the selection term that captures all the potential effects of differences in unobserved variables. On the other hand, the average treatment effect on the untreated (ATU) is the difference between Equations (9a) and (11a) and can be specified as:

$$ATT = E[(Q_{i1}|l=1)] - E(Q_{i2}|l=1) = Z_i(\alpha_2 - \alpha_1) + \lambda_2(\alpha_2 - \alpha_1) \quad \ldots (13)$$

Determinants of Access to Credit

Table 5 presents the coefficient and marginal effects of the multinomial regression estimated with 1,940 observations. The model is significant at the 1% level.[2] The estimated coefficients differ significantly across alternative sources of credit. Size of landholding had a positive significant effect on access to credit. Households with larger landholdings were

Table 5: Determinants of Choice of Credit Sources

Variables	Coefficients			Marginal Effects			
	Formal ($F_1|I_0$)	Informal ($F_0|I_1$)	Both ($F_1|I_1$)	No Credit ($F_0|I_0$)	Formal ($F_1|I_0$)	Informal ($F_0|I_1$)	Both ($F_1|I_1$)
Age (ln)	-0.494*	-1.052***	-0.472	0.155***	-0.029	-0.125***	-0.001
	(0.269)	(0.297)	(0.466)	(0.051)	(0.036)	(0.037)	(0.023)
Household size (ln)	0.101	-0.005	-0.065	-0.008	0.017	-0.004	-0.005
	(0.151)	(0.153)	(0.232)	(0.026)	(0.022)	(0.021)	(0.012)
Caste-base: Scheduled Tribes (STs) and Scheduled Castes (SCs)							
Other Backward Castes^	0.116	-0.367**	-0.000	0.021	0.033	-0.058**	0.004
	(0.174)	(0.176)	(0.282)	(0.029)	(0.026)	(0.024)	(0.014)
General castes^	0.542**	-0.306	0.101	-0.030	0.095***	-0.067*	0.001
	(0.224)	(0.255)	(0.385)	(0.040)	(0.033)	(0.035)	(0.019)
Education (years) (ln)	0.417*	-0.710***	-0.140	0.025	0.095***	-0.117***	-0.004
	(0.222)	(0.232)	(0.369)	(0.038)	(0.032)	(0.031)	(0.019)
Possessing a social safety net card^	0.230	0.499***	0.317	-0.075**	0.011	0.058**	0.006
	(0.171)	(0.193)	(0.286)	(0.029)	(0.026)	(0.027)	(0.014)
Cultivable land (ha) (ln)	0.859***	-0.193	0.164***	-0.252	0.444***	-0.330**	0.138**
	(0.757)	(1.078)	(1.224)	(0.154)	(0.105)	(0.146)	(0.059)
Awareness of loan waiver scheme^	0.770***	0.292	0.505	-0.116***	0.101***	0.005	0.010
	(0.208)	(0.182)	(0.347)	(0.032)	(0.031)	(0.025)	(0.018)
Direct cash transfer^	0.297*	0.206	0.948***	-0.069**	0.023	0.004	0.042**
	(0.172)	(0.170)	(0.360)	(0.028)	(0.026)	(0.024)	(0.019)
Pradhan Mantri Fasal Bima Yojana^	0.187	-0.171	0.058	-0.005	0.035*	-0.033*	0.003
	(0.134)	(0.141)	(0.230)	(0.023)	(0.020)	(0.019)	(0.012)
Mahatma Gandhi National Rural Employment Guarantee Act^	0.269	0.142	0.600**	-0.053*	0.027	0.001	0.025*
	(0.177)	(0.183)	(0.283)	(0.030)	(0.026)	(0.025)	(0.014)
Income from remittances^	-0.317**	0.188	0.151	0.012	-0.060***	0.037*	0.010
	(0.155)	(0.148)	(0.258)	(0.025)	(0.023)	(0.020)	(0.013)
Have Jan Dhan Yojana account^	0.033	0.406***	0.481**	-0.050**	-0.019	0.050***	0.019*
	(0.135)	(0.135)	(0.216)	(0.023)	(0.020)	(0.018)	(0.011)
Have sought information from any source^	0.281**	0.395***	0.555**	-0.076***	0.020	0.038**	0.019*
	(0.138)	(0.141)	(0.221)	(0.023)	(0.020)	(0.019)	(0.011)
Own livestock^	0.315*	0.195	-0.017	-0.049*	0.042	0.016	-0.009
	(0.177)	(0.176)	(0.292)	(0.029)	(0.026)	(0.024)	(0.015)
Distance to bank from village (in km)	0.028	0.049	-0.034	-0.006	0.003	0.006	-0.003
	(0.043)	(0.039)	(0.060)	(0.007)	(0.006)	(0.005)	(0.003)
Constant	-9.002***	6.723**	-9.100***				
	(2.129)	(2.721)	(3.440)				
Block fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,940	1,940	1,940				

Circumflex (^) indicates dummy variable. Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI–ICAR credit survey.

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more likely to take credit from both formal and informal sources. Households from general castes were more likely to take credit from formal sources than were SC and ST households. Farmers who were more educated preferred to take credit from formal sources. The awareness of the households also affected their decision to access credit and the selection of credit outlets. For instance, agricultural households that had heard about loan waiver schemes preferred to take credit from formal sources.

The promotion of loan waiver schemes by political parties motivated farming households to take credit from formal sources. Similarly, awareness of the direct benefit transfer scheme also had a significantly positive effect on taking credit from both formal and informal sources. On the other hand, agricultural households which were dependent on remittances preferred to get credit from informal sources. Households that had opened Jan Dhan Yojana (JDY) bank accounts after the PMJDY was launched in 2014 were more likely to borrow from informal sources. Households that had sought information from any source had a higher propensity to use both formal and informal sources of credit. Agricultural households that had more livestock preferred to take credit from formal sources.

Impacts of Source of Credit

Income effects: The impact of sources of credit on agricultural households' net farm income and on the productivity of major crops (rice and wheat) is examined next. This net farm income and the productivity of rice and wheat is used as a measure of agricultural household welfare. The estimated average net farm income from different sources of credit is calculated from the MESR model. We calculated ATT and ATU effects (Table 6). The findings in Table 6 should be viewed as two scenarios: (i) agricultural households preferring a single source of credit (formal or informal), and (ii) agricultural households prefer both formal and informal sources simultaneously.

The second-last column in Table 6 reports the treatment (ATT) and counterfactual (ATU) effects. Interestingly, in all three combinations of source of credit, the ATT and ATU effects are positive, suggesting that agricultural households that accessed credit realised higher annual net farm income than non-borrowing households, regardless of the source of credit chosen. However, agricultural households that accessed credit from both formal and informal sources simultaneously were more likely to experience enhanced annual net farm income.

Yield effects: Table 7 reports the impact of source of credit on the productivity of rice and wheat. The ATT of informal channels for outcome indicators (productivity of rice and wheat crops) have less value than formal sources. This suggests that taking credit from formal sources can result in higher productivity for agricultural households. In all counterfactual (ATU) cases, agricultural households that had taken credit from formal sources would have had a higher productivity had they not borrowed money. For example, agricultural households that had not taken credit from formal channels would have increased the productivity of their rice and wheat crops by about 1.7 q/ha and 1.8 q/ha, repectively, had they chosen to take credit from formal channels. This similarly positive impact was found for both formal and informal channels.

Heterogeneity Effects

The previous results for the ATT of credit access on outcome indicators depicted the important role played by credit. The estimates reported in Tables 6 and 7 assume a heterogeneous impact of credit access on all farmers; however, the estimated ATT of credit access on welfare outcome indicators can vary among different sets of farm households. Capturing the differential impacts of the Kisan Vigyan Kendra (KVK) access is therefore important for targeting individual farm households as well as designing the best-fit approach instead of a "one-size, one-institution and one-method-fits-all" approach. In this section, we present the heterogeneous treatment effect

Table 6: Treatment Effect on Farm Income

Channels of Credit Sources		Income/ha of Farmers Who Borrowed Money from Different Sources (₹)	Income/ha of Farmers Who Did Not Borrow Money from Any Source (₹)	Treatment Effect	%
F_1I_0	Borrowed	2,20,647	2,12,959	ATT = 7,688*	3.6
	Not borrowed	2,07,728	2,05,564	ATU = 2,164 ns	1.1
F_0I_1	Borrowed	2,39,104	2,30,021	ATT = 9,083 ns	3.9
	Not borrowed	2,72,448	2,05,564	ATU = 66,884***	32.5
F_1I_1	Borrowed	2,89,845	2,32,984	ATT = 56,861***	24.4
	Not borrowed	3,09,930	2,05,564	ATU = 1,04,366***	50.8

ns stands for not significant. *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI–ICAR credit survey.

Table 7: Treatment Effect on Productivity of Rice and Wheat

Channels of Credit Sources		Borrowed Money from Different Sources	Did Not Borrow Money	Treatment Effect	%
Rice yield (q/ha)					
F_1I_0	Borrowed	33.7	31.1	ATT = 2.6***	8.3
	Not borrowed	33.4	31.7	ATU = 1.7***	5.3
F_0I_1	Borrowed	31.6	32.5	ATT = -0.9 ns	-2.7
	Not borrowed	31.3	31.7	ATU = -0.4 ns	-1.3
F_1I_1	Borrowed	38.3	32.5	ATT = 5.8***	17.8
	Not borrowed	45.9	31.7	ATU = 14.2***	44.9
Wheat yield q/ha					
F_1I_0	Borrowed	28.1	25.3	ATT = 2.7***	10.8
	Not borrowed	28.2	26.5	ATU = 1.8***	6.6
F_0I_1	Borrowed	27.6	27.1	ATT = 0.5 ns	1.8
	Not borrowed	27.9	26.5	ATU = 1.4***	5.3
F_1I_1	Borrowed	29.8	27.0	ATT = 2.9**	10.6
	Not borrowed	30.8	26.5	ATU = 4.3***	16.1

*** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI–ICAR credit survey.

Table 8: Heterogeneity Effects

	Farm Income (₹/ha)			Rice Yield (q/ha)			Wheat Yield (q/ha)		
	Formal	Informal	Both	Formal	Informal	Both	Formal	Informal	Both
Age (ln)	2.074	-8.128*	8.243	-0.587	2.117	5.755	0.387	-3.150	-1.484
	(4.976)	(4.470)	(6.747)	(4.112)	(5.214)	(10.127)	(4.990)	(4.275)	(7.354)
Square of age (ln)	-0.207	1.247**	-1.179	0.341	-0.374	-0.877	0.020	0.476	0.204
	(0.648)	(0.583)	(0.883)	(0.543)	(0.696)	(1.293)	(0.640)	(0.557)	(0.948)
Household size (ln)	-0.194**	0.706***	0.040	0.133	-0.814***	-0.319	0.839***	0.943***	0.554*
	(0.088)	(0.094)	(0.205)	(0.110)	(0.131)	(0.495)	(0.099)	(0.110)	(0.291)
Caste-base: Scheduled Castes and Scheduled Tribes, Other Backward Castes^	0.585***	0.588***	-0.303	0.457***	0.613***	0.589	-0.219**	0.228**	-0.598
	(0.116)	(0.157)	(0.308)	(0.162)	(0.124)	(0.509)	(0.104)	(0.111)	(0.367)
General castes^	0.801***	0.639***	-0.708	-0.215	0.346*	-0.447	0.330**	-0.230	-0.085
	(0.159)	(0.164)	(0.482)	(0.171)	(0.177)	(0.684)	(0.131)	(0.195)	(0.375)
Education (years) (ln)	0.072	1.645***	-0.915**	1.553***	0.487**	0.037	-0.038	-0.402**	-0.142
	(0.167)	(0.163)	(0.384)	(0.181)	(0.194)	(0.423)	(0.143)	(0.166)	(0.376)
Possessing a social safety net card^	0.510***	-0.808***	-0.365	-0.510***	-1.006***	-0.162	-0.372***	0.772***	-0.280
	(0.134)	(0.148)	(0.296)	(0.115)	(0.176)	(0.441)	(0.093)	(0.180)	(0.321)
Awareness of: Loan waiver schemes^	0.605***	0.405**	0.682***	0.680***	0.896***	0.624	0.456***	0.623***	-0.118
	(0.129)	(0.160)	(0.218)	(0.202)	(0.283)	(0.446)	(0.164)	(0.174)	(0.367)
Direct cash transfers^	-0.615***	0.041	-0.932**	0.258*	-0.590***	0.168	0.228**	-0.060	0.118
	(0.120)	(0.115)	(0.401)	(0.154)	(0.129)	(0.546)	(0.093)	(0.122)	(0.368)
Pradhan Mantri Fasal Bima Yojana^	-0.296***	0.422***	-0.577**	-0.088	0.515***	-0.122	0.126	0.269**	0.280
	(0.110)	(0.113)	(0.216)	(0.118)	(0.136)	(0.252)	(0.086)	(0.104)	(0.252)
Mahatma Gandhi National Rural Employment Guarantee Act^	0.375***	-0.059	-1.130***	0.543***	0.537***	0.176	0.249**	-0.481***	0.160
	(0.118)	(0.128)	(0.332)	(0.139)	(0.153)	(0.431)	(0.114)	(0.160)	(0.243)
Income from remittances^	-0.373***	-0.291***	-0.200	0.704***	0.794***	0.045	0.014	0.828***	0.290
	(0.118)	(0.089)	(0.240)	(0.105)	(0.144)	(0.404)	(0.085)	(0.103)	(0.318)
Have Jan Dhan Yojana account^	1.381***	0.395***	0.291	-0.058	-0.081	0.394	0.021	0.149	-0.339
	(0.125)	(0.100)	(0.242)	(0.084)	(0.141)	(0.414)	(0.085)	(0.111)	(0.253)
Have sought information from any source^	0.596***	-0.242**	-0.667***	0.132	-0.541***	-0.405	0.225***	-0.692***	0.199
	(0.112)	(0.115)	(0.235)	(0.090)	(0.126)	(0.338)	(0.081)	(0.123)	(0.259)
Own livestock^	0.901***	0.284*	0.615**	0.181	0.068	0.945*	0.386***	-0.388**	-0.227
	(0.175)	(0.157)	(0.272)	(0.127)	(0.109)	(0.537)	(0.134)	(0.150)	(0.301)
Farmers type: base: landless									
Marginal	-0.112	0.014	0.351	-0.131	0.088	-0.437	-0.096	0.173	0.232
	(0.100)	(0.138)	(0.307)	(0.162)	(0.101)	(0.574)	(0.123)	(0.159)	(0.370)
Small	-0.038	0.073	0.200	-0.112	0.289*	-0.283	-0.135	0.122	0.390
	(0.143)	(0.142)	(0.370)	(0.169)	(0.151)	(0.596)	(0.121)	(0.192)	(0.313)
Medium and large	-0.147	0.314	0.466	-0.104	0.473**	0.570	-0.166	-0.041	0.315
	(0.165)	(0.189)	(0.626)	(0.178)	(0.235)	(0.632)	(0.153)	(0.354)	(0.684)
Sanctioned loan amount (ln) (₹)	0.001	-0.077	-0.184*	0.088	-0.056	-0.111	-0.034	-0.060	0.213
	(0.045)	(0.053)	(0.103)	(0.087)	(0.087)	(0.154)	(0.053)	(0.049)	(0.195)
Heard of Minimum Support Price	-0.070	-0.103	0.168	0.286**	-0.062	-0.263	0.140	0.038	-0.288
	(0.091)	(0.139)	(0.232)	(0.127)	(0.128)	(0.341)	(0.119)	(0.103)	(0.291)
Constant	-1.337	14.555*	2.686	-10.263	-1.983	-6.931	-3.094	1.618	-0.194
	(9.600)	(8.485)	(12.813)	(7.748)	(9.654)	(19.210)	(9.944)	(8.102)	(13.016)
Block fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	295	328	93	314	309	85	314	315	87
R-squared	0.757	0.648	0.908	0.684	0.624	0.819	0.755	0.588	0.709

Circumflex (^) indicates dummy variable. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1
Source: IFPRI-ICAR credit survey.

of access to credit. Following Verhofstadt and Maertens (2015) and Wossen et al (2017), we use the ATT of individual outcome indicators as a dependent variable in an OLS regression and then examine how the estimated ATT varies with the socio-economic characteristics of farmers. The estimated results, as shown in Table 8, indicate that credit has heterogeneous effects on farm households. We find a statistically significant differential impact of KVK access with respect to age, household size, gender, education, occupation, and farmer's awareness. These results emphasise that households headed by a male, and particularly when he is more educated, benefit most from KVK services. However, the impact of access to credit seems to be neutral to scale, which implies that once the marginal and small-farm households overcome the barriers of accessing formal credit, the likelihood of benefitting from the credit use remains the same as for large-farm households.

Conclusions

Despite consistent growth in the national economy, agricultural development—especially in the eastern region—faces a number of challenges. Farm households' lack of access to appropriate and adequate credit is one of the most important

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concerns in eastern India. This study explores the impediments to credit access experienced by rural households and the impact of credit on household incomes.

Three states in eastern India where the incidence of poverty is the highest were selected as the research area for this study. Most of the rural population in the selected region derives its primary income from agriculture and has limited access to credit schemes. There is increasing concern that eastern India is at a disadvantage in terms of poverty-reduction measures as compared to other regions of the country.

The results show that credit access is strongly associated with the socio-economic and demographic characteristics of agricultural households. Access to credit has increased their household income substantially and has significantly raised yields of major staple crops. The effects of credit access have an observable heterogeneous impact across different groups of households based on education and social group, implying that credit policies should be made adaptable to different types of farm households. However, *ceteris paribus,* credit access depicts homogeneous effects on marginal, small, medium, and large farm households, suggesting that the impact of credit access is neutral to scale.

This study is subject to certain limitations and also provides insights for further research. Since the study is based on cross-sectional data, it was not possible to analyse the dynamics of household resources and credit issues over time. More longitudinal studies are needed to assess the long-term effects of credit on agricultural households' welfare.

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NOTES

1 The second-stage parameter estimates of the outcome variables are given in the Appendix Table A2 (p 54).

2 Note that the model included block fixed effects as control variables.

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Appendix Table A1: Disaggregated Sources of Formal and Informal Credit and the Annual Interest Rate

	Percent Share	Interest Rate (%)
Formal source	51.3	12.1
Public/government bank	63.48	9.19
Regional rural bank (RRB)	13.69	9.58
Private bank	2.51	24.39
Self-help group	10.23	19.16
Microfinance institution	6.12	21.99
Private finance company	3.29	23.52
Cooperative bank	0.6	5.8
Informal source	48.7	27.4
Moneylender	56.51	37.11
Friend or relative	41.33	7.84
Agricultural trader	1.75	9.96
Commission agent/Adhatiya	0.4	36

Source: IFPRI-ICAR credit survey.

Appendix Table A2: Second-stage Parameters

	Net Farm Income (INR/ha)				Rice Yield (q/ha)				Wheat Yield (q/ha)			
Variables	F_0I_0	F_1I_0	F_0I_1	F_1I_1	F_0I_0	F_1I_0	F_0I_1	F_1I_1	F_0I_0	F_1I_0	F_0I_1	F_1I_1
Age (ln)	-0.357	1.031***	-2.517	1.977	-0.570	0.277	2.620	0.161	-0.309	-0.052	-0.088	-2.718**
	(0.457)	(0.323)	(1.666)	(4.162)	(0.468)	(0.377)	(2.808)	(4.858)	(0.584)	(0.298)	(0.930)	(1.365)
Household size (ln)	0.039	-0.006	0.251	-0.112	-0.087	0.020	-0.262	-0.103	-0.195***	0.049	0.069	-0.006
	(0.169)	(0.200)	(0.245)	(0.794)	(0.057)	(0.121)	(0.211)	(0.770)	(0.032)	(0.114)	(0.207)	(0.535)
Caste-base:												
Scheduled Castes and												
Scheduled Tribes	-0.131	0.038	-0.620	0.685	-0.138	-0.302	0.751	0.630	-0.027	-0.319	0.052	-0.415
Other Backward Classes^	(0.307)	(0.261)	(1.101)	(0.664)	(0.269)	(0.198)	(0.686)	(1.323)	(0.283)	(0.227)	(0.599)	(1.580)
General castes^	-0.083	-0.432	-0.929	0.846	-0.085	-0.837***	0.949	1.345	-0.023	-0.613**	0.189	-0.012
	(0.416)	(0.429)	(1.503)	(1.596)	(0.266)	(0.247)	(1.030)	(1.417)	(0.254)	(0.310)	(0.582)	(2.318)
Education (years) (ln)	0.076	-0.696	-1.889*	2.553	0.180	-0.816*	2.651	2.948*	0.430	-1.006***	0.763	-0.459
	(0.254)	(0.868)	(0.996)	(2.265)	(0.489)	(0.439)	(1.746)	(1.578)	(0.453)	(0.177)	(0.824)	(0.775)
Possessing a social safety	0.095	-0.079	1.143	-1.122	0.217	0.116	-1.527	-0.491	0.193	0.201	0.217	0.822
net card^	(0.171)	(0.215)	(0.807)	(1.526)	(0.250)	(0.287)	(1.072)	(0.827)	(0.242)	(0.280)	(0.474)	(0.617)
Awareness of:												
Loan waiver schemes^	0.165	-1.118	0.110	0.881	0.341	-0.719	0.197	1.863	0.223	-0.680	0.573*	1.278
	(0.219)	(0.872)	(0.497)	(2.271)	(0.218)	(0.598)	(0.294)	(2.262)	(0.246)	(0.626)	(0.332)	(0.920)
Direct cash transfers^	-0.040	-1.205	1.469	-1.523	0.175	-0.620	-1.887	-1.054	0.263	-0.373	0.141	2.928
	(0.280)	(0.790)	(0.941)	(5.971)	(0.131)	(0.501)	(1.519)	(5.743)	(0.214)	(0.469)	(0.810)	(3.633)
Pradhan Mantri Fasal	-0.000	-0.682*	-0.428	0.660	0.121	-0.608**	0.630	1.021	0.122	-0.529*	0.291	0.512
Bima Yojana^	(0.118)	(0.390)	(0.770)	(1.756)	(0.190)	(0.268)	(0.387)	(1.156)	(0.163)	(0.297)	(0.390)	(1.271)
Mahatma Gandhi National												
Rural Employment	-0.070	-0.694	0.183	-0.125	0.073	-0.676***	-0.303	0.318	0.168	-0.474	0.090	1.323
Guarantee Act^	(0.134)	(0.473)	(0.824)	(1.659)	(0.266)	(0.253)	(0.574)	(1.545)	(0.213)	(0.319)	(0.486)	(1.628)
Income from remittances^	-0.011	0.731	0.729	-1.284	-0.265	0.681*	-0.789	-1.792***	-0.212	0.616**	-0.326	-0.052
	(0.184)	(0.664)	(0.558)	(1.357)	(0.354)	(0.362)	(0.611)	(0.644)	(0.315)	(0.246)	(0.530)	(0.890)
Have Jan Dhan Yojana	-0.099	0.082	1.809	-1.777	-0.127	-0.041	-2.209**	-2.106	-0.029	0.227***	-0.317	1.578
account^	(0.155)	(0.330)	(1.226)	(1.660)	(0.209)	(0.200)	(0.998)	(1.746)	(0.211)	(0.078)	(0.517)	(1.469)
Have sought information	-0.035	-0.009	0.524	-0.806	-0.047	-0.097	-0.918***	-0.756	-0.055	-0.025	-0.280	0.725
from any source^	(0.114)	(0.127)	(0.398)	(1.149)	(0.106)	(0.220)	(0.317)	(1.146)	(0.176)	(0.149)	(0.315)	(0.864)
Own livestock^	0.159	-0.766	0.882***	-0.136	0.217**	-0.519	-0.884***	0.543	0.159	-0.354	0.144	1.466*
	(0.135)	(0.953)	(0.270)	(2.839)	(0.087)	(0.393)	(0.321)	(2.325)	(0.152)	(0.415)	(0.246)	(0.793)
Distance to bank from	-0.012	-0.213	0.217	-0.115	0.039	-0.149**	-0.283	-0.036	0.065	-0.091*	-0.020	0.407
village (km)	(0.031)	(0.141)	(0.192)	(0.582)	(0.029)	(0.074)	(0.178)	(0.649)	(0.053)	(0.050)	(0.078)	(0.422)
_m1		4.812	-6.288*	4.987		2.850	8.369	-3.935		1.208	-1.414	-11.223**
		(3.305)	(3.448)	(15.797)		(2.141)	(5.400)	(14.777)		(2.077)	(2.157)	(5.273)
_m2	2.060**		-0.951	6.152	2.872**		3.549***	14.429*	1.852**		4.706**	4.316
	(0.813)		(2.094)	(11.066)	(1.144)		(1.132)	(7.837)	(0.930)		(2.156)	(3.637)
_m3	1.677	-0.304		-10.421*	0.167	2.935***		-8.385*	-0.582	2.946***		5.248
	(1.550)	(1.903)		(5.652)	(1.785)	(0.943)		(4.949)	(1.680)	(0.737)		(5.033)
_m4	-3.478***	-2.505	4.059		-2.360***	-4.715***	-8.914**		-0.543	-2.911**	-3.050**	
	(1.005)	(2.062)	(3.164)		(0.687)	(0.619)	(3.762)		(0.626)	(1.304)	(1.453)	
Sigma2	11.954***	25.750	47.130	143.045	9.882**	26.378***	117.901	246.908	3.589	12.547	24.621	155.678*
	(4.242)	(16.395)	(50.064)	(344.379)	(4.579)	(8.088)	(94.907)	(154.118)	(5.164)	(12.864)	(31.285)	(90.020)
rho1		1.216	-1.175***	0.535		0.712	0.989	-0.321		0.437	-0.365	-1.154***
		(0.870)	(0.112)	(0.983)		(0.839)	(0.611)	(1.095)		(0.494)	(0.296)	(0.423)
rho2	0.764*		-0.178	0.660	1.172***		0.419	1.178**	1.254***		1.216***	0.444
	(0.439)		(0.365)	(1.012)	(0.286)		(0.507)	(0.570)	(0.222)		(0.179)	(0.360)
rho3	0.622	-0.077		-1.118**	0.068	0.733***		-0.684	-0.394	1.067***		0.539
	(0.781)	(0.955)		(0.515)	(0.760)	(0.113)		(0.509)	(0.808)	(0.200)		(0.686)
rho4	-1.290***	-0.633	0.758*		-0.963***	-1.177**	-1.053***		-0.368	-1.054*	-0.788**	
	(0.217)	(0.923)	(0.431)		(0.350)	(0.467)	(0.385)		(0.346)	(0.540)	(0.346)	
Constant	14.344***	19.818**	14.098**	4.620	5.711*	11.237***	-1.053	1.966	3.141	10.566***	1.418	-1.673
	(3.109)	(8.437)	(5.978)	(12.361)	(3.231)	(4.105)	(7.346)	(7.683)	(3.674)	(2.992)	(1.908)	(18.144)
Block fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

ln= long natural, Circumflex (^) indicates dummy variable. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.
Source: IFPRI-ICAR credit survey.

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Revisiting Open Defecation

Evidence from a Panel Survey in Rural North India, 2014–18

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Since October 2014, the Government of India has worked towards the goal of eliminating open defecation by 2019 through the Swachh Bharat Mission. In June 2014, the results of a survey of rural sanitation behaviour in North India were first reported. The results from a late 2018 survey that revisited households from the 2014 survey in four states—Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh—are presented. Although rural latrine ownership increased considerably over this period, open defecation remains very common in these four states. There is substantial heterogeneity across states in what the SBM did and how. These outcomes suggest the need for a transparent, fact-based public dialogue about the SBM, its costs and benefits, and its accomplishments and means.

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Since October 2014, the Government of India (GoI) has worked towards the goal of eliminating open defecation by 2019 through the Swachh Bharat Mission (SBM). By December 2018, 27 states had been declared open defecation free (ODF). In 2014, several of the co-authors reported on a survey of rural sanitation behaviour in North India (Coffey et al 2014) conducted by the Research Institute for Compassionate Economics (r.i.c.e.). Here, we report results from a late 2018 survey that revisited households from the 2014 survey in four states, Bihar, Madhya Pradesh (MP), Rajasthan, and Uttar Pradesh (UP).

Although rural latrine ownership increased considerably over this period, open defecation remains very common in these four states. Different statistical methods produce slightly different numbers, but results from a wide range of approaches used concur that approximately 40% to 50% of rural people in these states defecated in the open in late 2018. This has reduced significantly from about 70% of rural people in the 2014 survey. Much of the reduction in open defecation is driven by new latrine construction; nearly six in 10 households that did not own a latrine in 2014 acquired one by the 2018 survey. However, the fraction of people who own a latrine, but who nevertheless defecate in the open, did not change between 2014 and 2018; it was about 23% in both years.

The survey documents substantial heterogeneity across states in SBM implementation and effects. For instance, there was substantial cross-state variation in the proportion of households with newly acquired latrines, and in the proportion of latrines that were constructed by contractors rather than by households. Many respondents reported that SBM officials threatened them with fines, threatened to withhold government benefits, such as public distribution system (PDS) rations, or stopped them while defecating in the open. We discuss these three practices collectively as coercion, by which we mean persuading someone to do something using force or threats. The Scheduled Tribe (ST) and Scheduled Caste (SC) households were more likely than households from other social groups to report that they faced coercion. The variation in SBM-related coercion is correlated with variation in sanitation outcomes. In villages where more people reported coercive SBM activities, more people also reported switching to latrine use on an average. In a setting in which respondents may have feared punishment for not building or using a latrine, however, the estimates presented in this paper may understate the true levels of open defecation.

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The survey reported here is well-positioned to help us understand the changes in rural open defecation during the period of the SBM. It provides an up-to-date assessment for the four states studied, even more so than the estimates available from the 2015–16 National Family Health Survey-4 (NFHS-4). We note, though, that relative to other states in India, rural open defecation is high in Bihar, MP, Rajasthan, and UP, and so our results are not representative of rural India as a whole. These four states are nevertheless important because their rural populations constitute over two-fifths of India's rural population. We report quantitative, representative estimates based on sampling weights and demographic strategies that allow us to describe the rural populations of these four states, collectively. This paper will sometimes refer to "the focus states," "North India," or "the region;" these terms are used interchangeably to mean the rural population of these four states.

This paper details three main conclusions.

Much open defecation remains: In Coffey et al (2014), published in this journal, we computed a projection: if a latrine was provided for every rural household in these states, over 40% of the population would nevertheless defecate in the open. Our estimates from the 2018 data here cohere with that projection. Open defecation rates vary across North India, but despite active SBM implementation in many districts, open defecation has not been eliminated from any of the studied districts. Throughout the region, the number of rural people who defecate in the open is nearly as large as the number of people who do not. The different estimation strategies we apply to the new survey data suggest that between 42% and 57% of rural people over two years of age defecate in the open, with a preferred estimate of 44%. These findings contrast with government claims that open defecation has been entirely or largely eliminated (GOI 2018).

In its activities and its results, the SBM was diverse: Details of the SBM's implementation varied across states. States differ in the extent to which households acquired latrines and the extent to which households constructed latrines themselves or received them from contractors organised by local government officials.[1] This matters because people in households that received money to build their own latrine, rather than a government constructed latrine, were almost 10 percentage points less likely to defecate in the open. States also differ in how much officials encouraged latrine use in addition to construction.

There were commonalities in SBM implementation across states as well: Timelines for latrine construction were time-bound and short. In Rajasthan and MP, some villages were no longer implementing SBM (neither providing funds for toilet construction nor encouraging latrine use); in UP and Bihar, SBM activities had not started in some villages and were ongoing in others. Throughout the region, involvement of village, block, and district officials in SBM programme implementation had been more active than in prior sanitation programmes.

The SBM has had both benefits and costs. The reduction in open defecation it brought about is likely to improve health. But this comes at a social cost: coercion and threats were commonplace and sometimes violent. Reducing open defecation, even if it is not eliminated, is likely to improve health and contribute to economic prosperity. These are essential and worthy goals. But it is important to consider the costs of achieving these improvements. The SBM used coercion and threats to achieve toilet construction and, less often, its use. Coercion included harassment, fines, denial of public benefits (such as PDS rations), and, in some cases, even detention by the police. The ST and SC households were more likely to report coercion. Reductions in open defecation brought about through coercion may not last.

Data Sources and Fieldwork

The 2018 rural sanitation survey: The 2018 rural sanitation survey was conducted by r.i.c.e. over a four-month period from 24 August to 30 December. The survey visited Rajasthan in August, September and December, MP in September, UP in October, and Bihar in November and December.

Table 1 summarises the number of villages and households that were surveyed in each state as well as the number of people in those households. The 2018 rural sanitation survey revisited a random subset of 157 villages from the 2014 survey, in 11 districts. The 2014 survey used a multistage sampling strategy to select households: first, districts were purposively selected to match the state-level trend in rural open defecation between the 2001 and 2011 Censuses; second, villages were randomly drawn using proportional-to-size sampling from a frame taken from the Government of India's District Level Health Survey; third, households were selected using an in-field randomisation technique similar to that used for Pratham's Annual Status of Education Report (ASER) survey. The Rajasthan sample is smaller than that for the other states because the survey only visited two districts in Rajasthan; it visited three districts in other states.[2] Of the 1,389 households that we attempted to reinterview in 2018, we were able to reinterview 1,224 (88%).

Table 1: Description of Fieldwork and Sample

	Persons	Households	Households in 2014 Sample	Refresher Households Not in 2014 Sample	Villages
Focus states (full sample)	9,812	1,558	1,224	334	120
Bihar	2,669	367	293	74	30
Madhya Pradesh	2,660	459	347	112	34
Rajasthan	1,539	241	172	69	25
Uttar Pradesh	2,944	491	412	79	31

Data source: 2014 and 2018 rural sanitation surveys.

In addition to the households that were part of the 2014 survey, the 2018 survey also added a refresher sample, which comprises 21% of the 2018 sample. Refresher samples are common in panel studies, including the India Human Development Survey panel, collected in 2005 and 2011 (Desai et al 2012). Refresher households were added to the 2018 sample in one of three ways: first, if a household head from the 2014 survey passed away or migrated, surveyors randomly selected a household to interview from among his sons who were living in the village; second, if a household from the 2014 sample moved out of the village, a neighbouring household was randomly selected as a replacement;

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third, when all reinterviews and neighbour interviews were completed in the village, surveyors interviewed new households in parts of the village that had not been covered by the 2014 survey.[3] These new households were selected using an in-field randomisation technique similar to the one used by Pratham's ASER survey. The survey data from both the 2014 and the 2018 surveys are publicly available.[4]

We achieve representativeness of the rural population of these states by constructing weights based on the 2011 Census of India, which we describe below. One reason to be confident of our results is that, within each state, using census weights does not importantly change our summary statistics or estimates of open defecation.

Qualitative data collection: Our fieldwork also included a substantial qualitative component. This qualitative fieldwork was designed to understand how the SBM was implemented. The two leading co-authors of the paper conducted 156 qualitative interviews in the same villages and blocks as the quantitative interviews in the 2018 survey. These interviews inform our interpretation of the statistics that we present.

Table 2: Summary of Qualitative Interviews in Each State

	Bihar	Madhya Pradesh	Rajasthan	Uttar Pradesh
Pradhan/sarpanch/mukhiya	9	11	6	14
Secretary/assistant secretary	1	12	5	1
Ward member	15	0	1	0
Health/nutrition worker	2	9	6	2
Ration dealer	0	3	5	1
Block official	6	2	1	4
Swacchagarhi	5	0	0	7
Chowkidar	0	5	0	1
Rozghar sevak	0	0	1	4
Other	2	5	6	3
Total	40	47	32	37

Case study of Udaipur, Rajasthan: Additionally we draw upon a case study of Udaipur, Rajasthan conducted by the Accountability Initiative of the Centre for Policy Research (Deshpande and Kapur 2018). The objective of the study was to assess the administrative processes by which ODF gram panchayats had become ODF and verify their current status. The 2017 Accountability Initiative study followed a larger assessment of SBM done in December 2015, in which Udaipur was one among 10 districts across five states. The fact that Accountability Initiative did fieldwork in Udaipur district at different points in SBM implementation helps build understanding of the impacts of SBM in Udaipur.

Between April and June 2017, Accountability Initiative's Udaipur survey interviewed 505 households in 19 villages, and 60 households in two census towns (a total of 565 households in ODF catchments). The survey was self-weighted to be representative of ODF panchayats in Udaipur. Of these, 171 households were from declared and "verified" ODF panchayats; the remaining households were from declared (but not verified) ODF panchayats.

Accountability Initiative's 2017 Udaipur survey did not have the same survey questionnaire or sampling strategy as the 2018 rural sanitation survey, nor was Udaipur district one of the Rajasthan districts visited by the 2018 survey. Although data from Accountability Initiative's 2017 Udaipur survey are not included in the tables and figures, we summarise its findings to show that complementary evidence, collected by multiple research teams, produces reinforcing conclusions.

How Much Open Defecation Remains?

Three estimation strategies: We describe how we construct estimates of population-level open defecation for the focus states. Because villages and households were randomly selected, we can produce estimates that are representative of these states. There are multiple ways that a sample survey can extrapolate to estimates that are intended to be representative of the population. In any empirical study, each candidate estimation strategy has advantages and disadvantages. So, we report estimates of the overall fraction of people who defecate in the open using three complementary strategies:

(i) Unweighted sample means: This is the simplest strategy. We report the fraction of respondents in our sample who defecate in the open, without adjustments.

(ii) Census-weighted sample means: This is our preferred strategy, and the one that we use as a default unless otherwise stated. We report the fraction of people in our sample who defecate in the open, weighted by age and sex to be representative of the population of the region. Here, the assumption is open defecation among people in our data is comparable to open defecation of people in the same state who match on age and sex, as recorded in the 2011 Census.

(iii) Weights from matched demographic survey data: For this strategy, we conduct a person-level match—within each of the four states—to people in the 2015–16 NFHS-4 who match on demographic and socio-economic categories. The categories we use combine age, sex, whether the person has been to school, and what combination of the following assets their household owns: a television, a pressure cooker, a fan, a cooler, a mosquito net, a fridge, and a motorcycle. We assign each individual in the NFHS-4 the average open defecation rate among matched people like them in our survey data, then compute average open defecation. Here, the assumption is open defecation among people in our data is comparable to open defecation of people in the same state who match on these detailed demographic and socio-economic characteristics.

We show results using three different strategies in order to emphasise that we draw the same general policy conclusions no matter which strategy is used. Any survey's results depend on the choice of weighting strategy, but our qualitative conclusions are robust to all three strategies. The 2018 survey questionnaire and Stata do-files used to produce estimates from the 2018 survey are publicly available on the r.i.c.e. website.

Estimates of open defecation in 2018: Table 3 (p 58) presents estimates of the frequency of open defecation among rural

people over two years of age (rows labelled "all") and among rural people over 18 years old (rows labelled "adults") living in the focus states using each of the three strategies described earlier. Averaging over the entire region, and over people who do and do not own latrines,[5] we compute that about 44% of all people defecate in the open, with our preferred census-based sampling weights. If we use only the households that were in the 2014 sample (that is, if we drop the refresher households from the analysis), we find a similar result (42%).

Notice the effect of the sampling weights in Table 3. Within states, moving from unweighted estimates to census-weighted estimates makes little difference. For example, person-level open defecation for UP is approximately 38% with or without weights. However, using census weights at the region level (for the focus states as a whole) appropriately yields a large increase in the estimate of open defecation because it is common in UP and Bihar, and these states have larger populations.

Table 3 also reports estimates of open defecation using weights constructed by matching assets in the NFHS-4, as well as age and sex. These weights produce larger estimates of open defecation because the NFHS-4 sample is asset-poorer than our sample. Using these weights has the effect of up-weighting disadvantaged households.[6]

Although not reported in the table, we find that 40% of households with a latrine have at least one person who defecates in the open, and 56% of all households have at least one person who defecates in the open. This, too, coheres with the central finding of Coffey et al (2014), which finds that, in rural North India, open defecation is common even in latrine-owning households.

It is important to note that the estimates in Table 3 most likely understate open defecation. Even though we designed the defecation behaviour questions to minimise social desirability bias,[7] the majority of respondents reported being aware of some form of coercion being used in the village to encourage latrine construction and use. It is likely that some respondents did not disclose open defecation despite surveyors' best attempts to encourage respondents to feel comfortable telling the truth.

Changes in open defecation, 2014–18: Table 4 summarises the changes in open defecation and latrine ownership between the two surveys. It includes all observations in the 2018 survey (including newly added households) and all observations in the 2014 survey (including those that were not reinterviewed in 2014).[8] All of the estimates in Table 4 use census weights described earlier. For latrine ownership, household-level census weights are the sum of the person-level census weights of people living in the household.

In 2018, at the state level, open defecation ranged from 25% in MP to 60% in Bihar. These results contrast with government claims that these states are entirely or largely provided with latrines and open defecation free (for example, GOI 2018).[9] Nevertheless, we find important reductions in open defecation. In the region as a whole, open defecation declined from approximately 70% of people over two years old in 2014, to approximately 44% of people over two years old in 2018.

This reduction of 26 percentage points in individual open defecation over a four-year period (more than 6 percentage points per year) was rapid compared to the likely rate of decline in prior years. Although there are, unfortunately, no directly comparable data on individual-level open defecation from prior surveys, the NFHS measures open defecation at the household-level (according to what people in the household usually do) and provides a roughly comparable estimate. It finds that household-level open defecation in the region declined at less than 2 percentage points per year (from about 87% of households to about 70% of households) between 2005 and 2015.

Where is the decline in open defecation coming from? How did it occur? The last three rows of Table 4 show the results of a Kitagawa decomposition of the decline of individual-level open defecation. Open defecation depends on two factors: latrine ownership, on the one hand, and behaviour among latrine owners and non-owners, on the other. A Kitagawa decomposition is a tool in demography that separates a change in a weighted average into its two component factors—the weights and the conditional means (Kitagawa 1955). In this case, latrine ownership is the weight (what fraction of the population does and does not own a latrine) and behaviour is the

Table 3: Open Defecation in Rural North India, 2018

Sample	Latrine Owners	Weight	Focus States (%)	Bihar (%)	Madhya Pradesh (%)	Rajasthan (%)	Uttar Pradesh (%)
All	Owners and not	No weight	42	59	24	52	38
All	Owners and not	Census	44	60	25	53	39
All	Owners and not	DHS weights	57	77	29	62	53
Adults	Owners and not	No weight	41	57	23	52	38
Adults	Owners and not	Census	43	57	23	54	38
Adults	Owners and not	DHS weights	54	73	27	61	50
All	Latrine owners	Census	23	21	16	40	21
Adults	Latrine owners	Census	23	19	15	41	21
Adult F	Owners and not	Census	41	57	21	53	34
Adult F	Latrine owners	Census	20	18	13	39	17
Adult M	Owners and not	Census	44	56	25	56	41
Adult M	Latrine owners	Census	25	21	17	43	24

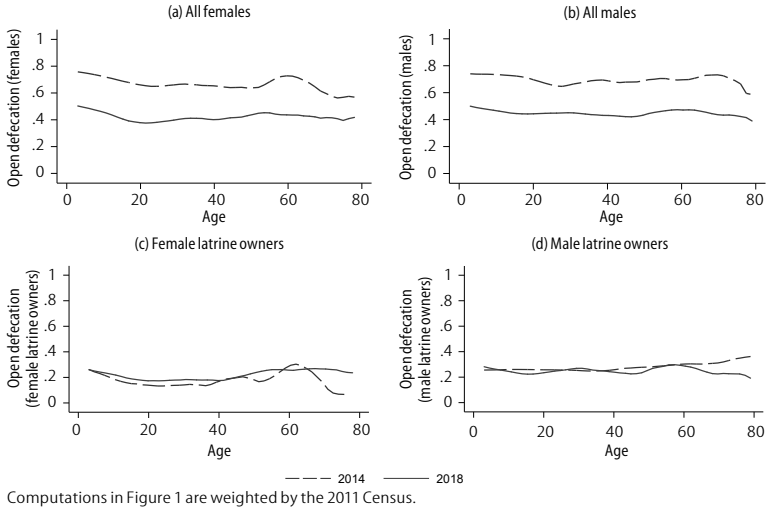
F = Females; M = Males.
Data source: 2018 rural sanitation survey.

Table 4: Change in Open Defecation, 2014–18

	Focus States	Bihar	Uttar Pradesh	Madhya Pradesh	Rajasthan
Census-weighted means					
Open defecation, 2018	44%	60%	39%	25%	53%
Open defecation, 2014	70%	75%	65%	68%	76%
Open defecation, change	26pp	15pp	26pp	43pp	26pp
Latrine ownership, 2018	71%	50%	73%	90%	78%
Latrine ownership, 2014	37%	29%	42%	43%	31%
Latrine ownership, change	33pp	21pp	31pp	47pp	47pp
Kitagawa decomposition					
ΔOD due to behaviour	1pp	1pp	3pp	7pp	-7pp*
ΔOD due to ownership	25pp	15pp	23pp	37pp	30pp
% of change due to ownership	96%	97%	89%	84%	130%

"pp" stands for "percentage points."
* The Kitagawa decomposition has a negative component for Rajasthan because open defecation conditional on ownership increased for both latrine owners and non-owners.
Data source: 2014 and 2018 rural sanitation surveys.

Figure 1: Open Defecation by Age and Sex



Computations in Figure 1 are weighted by the 2011 Census.
Data source: 2014 and 2018 rural sanitation surveys

conditional expectation (what fraction of owners and non-owners defecate in the open).[10]

We find that nearly the entire change in open defecation between 2014 and 2018 comes from increases in latrine ownership, rather than from changes in behaviour (that is, differences in the proportion of owners and non-owners who defecate in the open). This finding is consistent with our qualitative interviews, which found that local officials were far more likely to stress latrine construction as a priority of the SBM than they were to stress use of latrines.

Figure 1 tells a similar story to the one told by the Kitagawa decomposition. It presents local polynomial regressions of open defecation on age (separately for men and women) for the 2014 data and the 2018 data. Panels (a) and (b) show relatively large declines in open defecation among both men and women between 2014 and 2018. Panels (c) and (d) show, as the decomposition did, that latrine use among latrine owners was essentially unchanged in 2018 relative to the 2014 survey. Although not shown in the graph, we note that latrine use among owners is higher for people who have owned latrines for longer periods of time: among people in households that had latrines in 2014, 10% defecate in the open, whereas among people in households that acquired latrines between 2014 and 2018, 36% defecate in the open.

Diverse Inputs, Diverse Outcomes

The SBM was a national campaign, but sanitation policy in India is implemented through state bureaucracies. Drawing upon the 2018 quantitative survey data and qualitative interviews, and the 2017 Accountability Initiative's Udaipur survey, we discuss how SBM implementation differed across the focus states.

Variation in latrine construction: As we have discussed, the survey found large increases in latrine coverage in each of the focus states between 2014 and 2018. Yet, there was also considerable variation: Table 4 showed that increases in latrine ownership ranged from 21 percentage points in Bihar to 47 percentage points in MP and Rajasthan. Table 5 shows that government support for latrine construction, in the five years before the survey,[11] ranged from 19% of households in Bihar to 53% of households in MP.[12]

Table 5 shows state-level differences in the proportion of newly constructed latrines that were constructed by the households themselves and subsidised by the government ("government money") rather than built by a contractor ("government built"). In Rajasthan, households were almost exclusively subsidised for constructing their own latrines (including, in some cases, for latrines that existed before the SBM). In Bihar, MP, and UP, however, some households constructed their own latrines, while other households had latrines constructed for them by contractors hired by local government officials.

Whether a household built its own latrine or received a contractor-constructed latrine is of interest because contractor-constructed latrines are typically less well-constructed than latrines that households build for themselves. Both in the 2018 survey and in Accountability Initiative's 2017 Udaipur survey, ST households were more likely than households from other groups to receive government constructed latrines rather than a subsidy to construct their own latrines.[13] Latrines that households build for themselves are more likely to be used. Indeed, the 2018 survey found that people in households that received money to build their own latrine, rather than a government-constructed latrine, were almost 10 percentage points less likely to defecate in the open.

Table 5 also shows differences in the types of latrine pits that households own. A "twin pit" is recommended by the government because, if it is constructed and used properly, it

Table 5: Latrine Ownership, Type and Provision by State, 2018 (%)

	Focus States	Bihar	Uttar Pradesh	Madhya Pradesh	Rajasthan
Panel A: All households					
Owns latrine	71	49	90	78	74
Any government support	39	19	53	46	43
Government money	21	9	24	42	20
Government built	14	9	25	2	16
Panel B: Households that did not own a latrine in 2014					
Owns latrine	57	37	83	65	61
Any government support	42	18	66	37	55
Government money	20	5	29	33	23
Government built	17	11	33	2	22
Panel C: Pit type, among households that own a larine					
Twin pit	25	16	22	7	35
Single pit	40	49	50	69	22
Containment chamber	31	30	26	17	38
Other	5	5	2	8	5
Panel D: Pit type, among households that own a larine and received government support					
Twin pit	42	33	32	11	61
Single pit	34	40	51	64	13
Containment chamber	21	26	16	22	21
Other	3	1	1	4	5

Weighted by 2011 Census.
Data source: 2014 and 2018 rural sanitation surveys.

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allows faecal sludge management to be done safely, sustainably, and inexpensively without resorting to manual scavenging. The faeces in the first pit can be allowed to decompose while the other is in use. Decomposed faeces are less biologically hazardous than fresh faeces and can be safely emptied by hand. "Single pit" latrines cannot be emptied safely (unless the household builds a second pit) because the faecal sludge would not have time to decompose before the pit is emptied. "Containment chambers" are typically the most expensive type of pit to construct. Once full, they are typically emptied by a suction machine. This method of faecal sludge management is expensive and is done when faecal sludge is fresh. Because there are few sewage treatment plants in rural north India, sludge from containment chambers is typically disposed of unsafely.[14]

Panel C of Table 5 shows the fraction of latrines with different pit types among all households that own latrines; Panel D restricts the sample to households that received any form of government support to build a latrine in the five years before the survey. A common finding across states is that only a minority of latrine-owning households have a twin pit latrine. However, government-supported latrines were more likely to be twin pit latrines than latrines that were not government-supported.

Our qualitative interviews found that many local government officials were aware that twin pit latrines are recommended by the government, knew how they worked, and understood why they are better for health and sustainability than containment chambers. This should be considered an accomplishment of the programme. However, many local officials also admitted that households in their village either strongly preferred containment chambers or did not build twin pits in a way that would allow them to be emptied safely. In fact, among households that own twin pit latrines, 48% reported that both pits were in use at once, as the pits are connected to each other with a pipe. This modification to the twin pit design prevents faeces from decomposing before emptying, but permits households to have a subjectively "large" pit that takes more time to fill. Accountability Initiative's 2017 Udaipur survey also found that that twin pits were unpopular. In that survey, only three households reported having constructed twin pit toilets.

Variation in personnel and payments: Different village-level officials were more likely to be involved in publicising the SBM in different states. In Bihar and UP, where SBM activities were ongoing at the time of the survey, swacchagrahis had been recruited. Swacchagrahis tried to convince people to build toilets and assisted with filing paperwork and geotagging for the release of subsidies. In MP and Rajasthan, where SBM activities had, for the most part, concluded by the time of the survey, swacchagrahis had not been hired. Rather, in these two states, it was common for block officials to ask panchayat officials to form "nigrani samitis" or "vigilance committees" consisting of the sarpanch, secretary, village health and nutrition workers (accredited social health activist and anganwadi workers), chowkidars or other village officials. Nigrani samiti members were expected to explain the subsidy programme, convince people to build toilets, and stop and/or shame people who defecated in the open. Accountability Initiative's 2017 study similarly found that, in Udaipur, the SBM was implemented through the existing front-line bureaucracy with little or no capacity augmentation. Contrary to the stated objective, samiti members often did not represent the local community, but instead operated as a downward extension of the government.

Different village-level officials were also involved in managing verification of latrine construction and applications for subsidies in different states. Whereas in Rajasthan, MP, and UP, sarpanches/pradhans and secretaries were relied upon for providing and processing the forms for latrine subsidies; in Bihar, this task fell primarily to ward members. Those officials whose signatures were required for applying for the latrine subsidy were often able to collect informal payments from households. Although we encountered instances of corruption in all states, it was most evident in Bihar, where a ₹2,000 bribe to the ward member was often required to secure a subsidy transfer.

In Bihar, MP, and Rajasthan, subsidy payments were almost uniformly made to beneficiary accounts; whereas in UP, pradhans and secretaries wrote checks to beneficiaries. In UP, these village officials had substantial discretion over which households received subsidy payments. When contractor latrines were built in UP, village officials could also pay contractors without routing funds through beneficiary accounts. In other states, when contractors built latrines, local officials typically collected the subsidy money from households after they received it in their bank accounts. In Bihar, local officials often mentioned a rule, which had been revoked a few months before the survey, that subsidies could not be disbursed in a particular ward until approximately 75% of households in that ward had constructed latrines. In their opinion, this rule made it very difficult to convince people to build latrines.

Commonalities in implementation across states: An important commonality in SBM implementation across states was that panchayat, block, and district level officials were far more actively engaged in SBM implementation than in the implementation of prior sanitation schemes. Village officials reported working long hours to publicise the subsidy and process forms in order to facilitate the construction of latrines. Table 5 shows that across the focus states 39% of all households, and 42% of households that did not own a latrine in 2014 received government support to construct a latrine in the five years before the survey. In 2014, many fewer households in these states—less than 10% reported having received government support for a latrine.[15]

This active engagement of government officials with the SBM typically stopped at latrine construction; it focused little on latrine use. Officials said the goal of the SBM was to make the village "open defecation free." Despite the fact that the literal meaning of these words is quite different, officials explained that this phrase refers to latrine coverage in a village. Many elected leaders and village secretaries readily stated that block and district officials expected them to fill out the paperwork claiming ODF status when about 80% of the households owned latrines.

Across the states we studied, village officials were given tight deadlines for latrine construction that they often felt they could not reasonably meet. Our qualitative interviews, as well as results from Accountability Initiative's 2017 Udaipur survey,[16] suggest that rapid timelines for latrine construction imposed on local officials by block and district officials were part of the reason that coercion was such a widely used tool in SBM implementation.

What Are the Costs?

Coercion and threats: If sustained, the estimated reduction in open defecation of approximately 26 percentage points over four years of the SBM could imply important improvements for child health and economic prosperity. But it came at a social cost: coercion and threats by local officials were commonplace. Violence and bullying sometimes occurred, as documented by journalistic accounts (*Indian Express* 2017; Singhal 2017).

In the 2018 rural sanitation survey, we asked about three forms of coercion: whether people were prevented from defecating in the open or harassed while doing so, whether people lost or were threatened with the loss of public benefits (such as food rations),[17] if they did not comply with the SBM, and whether people were fined or threatened with fines if they did not comply with the SBM.

We recognise that these forms of coercion vary both in how ethical they are, and in whether or not they can be lawfully used. For instance, local officials sometimes reported that they merely embarrassed people who defecated in the open by garlanding them (see Gupta et al 2019). In contrast, villagers sometimes reported guards with sticks being posted to chase people away from open defecation sites, or their legally entitled food rations being denied for not constructing a toilet. We also note that there was heterogeneity in what officials expected of villagers. In most places local officials threatened people who did not build latrines. However, in MP, and to some extent in UP, threats were also used to convince latrine owners to use them. We hope that the analysis we present here and the questions we raise will encourage others to analyse these tactics more carefully than we are able to, given the limited space of this paper. For each form of coercion, we ask whether it happened to the respondent's household, and whether the respondent was aware of it happening in his or her village.

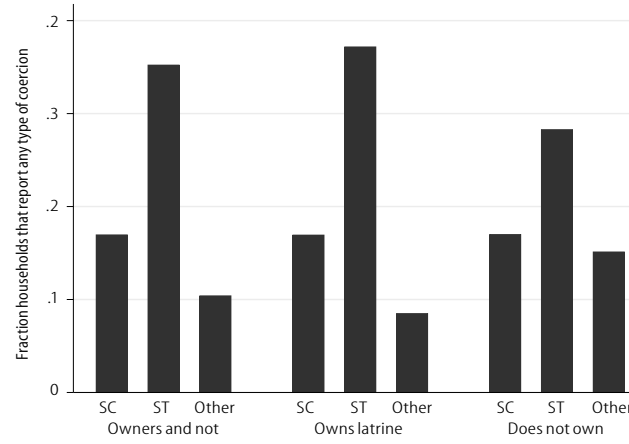
Table 6 estimates that more than half of the households in the focus states are aware of some form of coercion in their village. This coerciveness is at odds with the SBM's claims that switching to latrine use occurred through a bottom-up "true people's movement" (*DD News* 2017). Especially troubling is that about one in four households said that they had heard of government benefits being withdrawn from those that did not have latrines.

Table 6: Survey Reports of Threats, Fines and Coercion (%)

Coercive State Action		Focus States	Bihar	Madhya Pradesh	Rajasthan	Uttar Pradesh
Stopped from OD	Own household	9	11	11	11	6
Stopped from OD	Aware of in village	47	40	67	54	42
Benefits threatened	Own household	5	3	9	13	3
Benefits threatened	Aware of in village	25	9	47	42	20
Fine threatened	Own household	2	1	6	1	2
Fine threatened	Aware of in village	26	14	47	25	28
Any of these three	Own household	12	12	17	19	9
Any of these three	Aware of in village	56	47	78	68	50

Weighted by 2011 Census.
Data source: 2018 rural sanitation survey.

Figure 2: Households with Experience of SBM Coercion



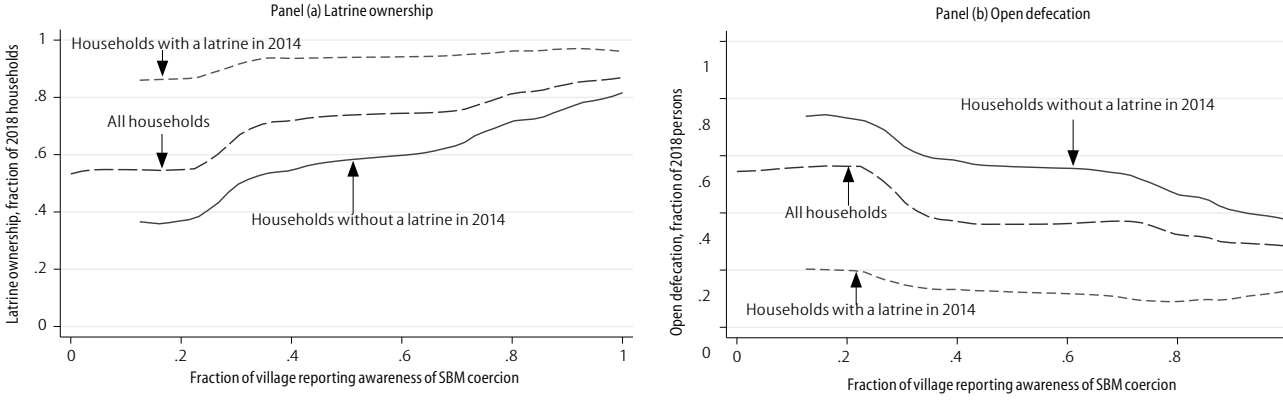
Data source: 2018 rural sanitation survey.

Coercion followed familiar patterns of social disadvantage. Figure 2 shows that, both among latrine owners and among latrine non-owners, SC and ST households were more likely than households from other social groups to report that they personally experienced one of these three forms of coercion. Among households that own a latrine, SCs are over twice as likely as others to report that their own household received one of these three forms of coercion and STs were almost three times as likely.[18] Moreover, these basic findings are unchanged if the sample is restricted only to households that did not own a latrine in 2014, so they cannot be explained away by the fact that SCs and STs are poorer than households from other backgrounds and, therefore, less likely to own latrines.

In addition to variation within villages, the coerciveness of the SBM varied across villages. Figure 3 (p 62) shows that the village-level coerciveness of the SBM is an important predictor of latrine ownership (Panel [a]), and, through its effect on latrine ownership, of reported open defecation (Panel [b]). In both panels of Figure 3, observations are villages (the explanatory variable varies at the village level); villages are weighted by the sum of person-level weights from the 2011 Census. Latrine ownership (the vertical axis of Panel [a]) and open defecation (the vertical axis of Panel [b]) are representative of rural persons in the focus states.

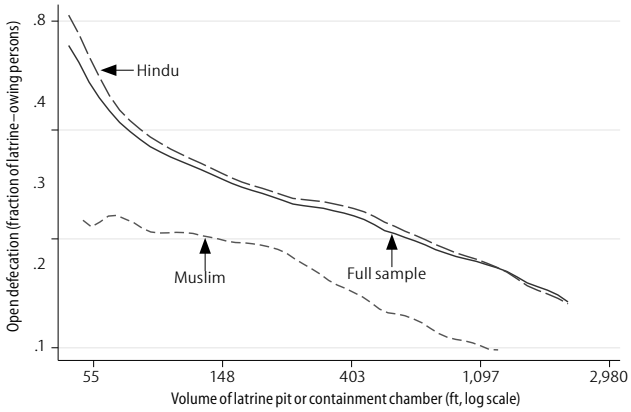
Figure 3, combined with our qualitative interviews and with evidence from Accountability Initiative's 2017 Udaipur study, provides strong evidence that coercion was central to what the SBM did in practice. Indeed, although many local SBM implementers said that they had been trained on talking points about benefits of latrine use, they were also familiar with a variety of coercion tactics, which were routinely shared and encouraged through meetings and WhatsApp groups. Very few local officials expressed the view that such tactics were inappropriate or extreme. These tactics, especially the denial of

Figure 3: Village-level Reported SBM Coerciveness Strongly Predicts Sanitation Outcomes



Data source: 2014 and 2018 rural sanitation surveys.

Figure 4: Open Defecation among Latrine Owners by Pit Size and Religion, 2018



Data source: 2018 rural sanitation survey.

food and other government benefits, are different from community-led attempts to stop behaviours with social costs and to "nudge" people towards desirable behaviours. The qualitative interviews, combined with evidence from Accountability Initiative's 2017 Udaipur study, suggest that the use of coercion and threats, rather than sustained persuasion and outreach, were relied upon heavily and that village officials were pressured by block, district, and state officials to achieve toilet construction targets in unreasonably short periods of time.

These findings raise uncertainty about whether latrine use among new latrine owners will be sustained when the environment of enforcement and coercion diminishes. Accountability Initiative's 2017 Udaipur survey provides evidence that it may not. The survey, which was done many months after SBM implementation, found that only 45% of people in households where the primary reason for building a latrine was pressure from village officials used it, compared with about 80% latrine use among people in households where convenience or lack of open spaces was the primary cause for construction.

These findings suggest the need for transparent, fact-based public dialogue about the SBM: its costs and benefits, its accomplishments and means. Reducing open defecation offers a benefit for the health of children and others who would be otherwise exposed to faecal germs. Through improvements in health, reduction in open defecation will also likely improve long-run economic prosperity. Subsidised provision of latrines also benefit people who would like to use a latrine but who are not able to build one for themselves, especially older and disabled people (Coffey and Spears 2017). Yet, as we found, the SBM was coercive. Worse still, threats and sanctions were most likely to fall on ST and SC families. It also matters whether citizens can trust what the government claims. Finally, another cost is the opportunity cost. When officials were working on the SBM, they were not serving citizens in other ways. Of course, our data cannot fully resolve whether the benefits of the SBM were worth its costs. But we hope that our data can inform public debate on this question.

Sanitation in Rural North India

Open defecation is far more prevalent in rural India than in other, poorer countries. Factors such as ritual purity and the caste system realised in fears about latrine pits filling up and needing emptying combined with high population density to make open defecation a potent threat to health and well-being in rural India (Routray et al 2015; Coffey et al 2017).

The new survey data suggests that the SBM, unfortunately, did not focus on addressing these social attitudes and ideas about latrine pits. If it had, it may have achieved a more sustainable decline in open defecation, and may also have done a better job laying the groundwork for safe and sustainable faecal sludge management practices in the future. Figure 4 reveals that some of the most important social predictors of latrine use, documented in 2014, remain in 2018.

Figure 4 plots the prevalence of open defecation among latrine owners against the volume of their latrine pits or containment chamber. Households are split by religion: across the distribution, Hindus in latrine-owning households are more likely to defecate in the open than Muslims in latrine-owning households.[19] It finds that open defecation is much less common in households with larger latrine pits, especially among Hindu households. One reason for this pattern is that smaller pits are perceived to require frequent emptying, an activity which is associated with caste impurity. Large pits, in contrast, do not require emptying as frequently, and therefore, their use does not invoke the same worries about contact with faeces or hiring a manual scavenger. Figure 4 replicates a graph that we

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first made using the 2014 data (see Coffey et al 2014). Efforts to convince people in villages to use more affordable latrines and manage faecal sludge disposal properly should be at the centre of the next rural sanitation policy.

Conclusions

Our 2018 survey documents that open defecation declined more rapidly over the past five years than it did before the SBM. This is because more latrines were built; latrine use among latrine owners is similarly common as it was five years ago. However, SBM latrine construction was far from universal in UP and Bihar, two states which, due to their population sizes, are quantitatively influential in determining India's overall open defecation rate. Further, latrine construction was often accomplished through coercion. It remains to be seen whether latrine use achieved through coercion will be sustained.

Despite claims to the contrary, open defecation is still a pressing problem in rural India. The health of children is still threatened by the germs in the faeces around them, so it matters enormously what rural sanitation policies are tried next. A wide literature now documents the implications of social ideas of caste and untouchability for latrine-pit emptying and use. In our new data, we can see that well-studied predictors and patterns of latrine use that reflect these causes remain intact and that relatively few households have built the sorts of latrines that allow faecal sludge to be managed safely and sustainably.

The next rural sanitation policy for North India could choose a different course. To eliminate open defecation from rural India, coercive tactics should be stopped and latrine use should be encouraged alongside efforts to transform the social attitudes that have made open defecation so prevalent and challenging to address in the past.

NOTES

1 There was also substantial variation in SBM implementation across districts within the same state.

2 We show subsequently that the proportion of people who defecate in the open changes little whether or not we use census weights on the Rajasthan sample. This suggests that our conclusions are not much affected by having a smaller sample for Rajasthan.

3 Where the 2014 study had covered all parts of the village, new households were sampled using a list of random numbers and a randomly selected 2014 household as a reference point.

4 https://riceinstitute.org/data/2014-and-2018-rural-sanitation-surveys/. STATA code that reproduces the results in this paper is available at the same link.

5 In order to capture people using public toilets or neighbours' latrines, the 2018 rural sanitation survey asked people where they defecated whether nor not they owned a latrine. We note that public toilets are uncommon in rural India—we did not encounter any functioning public toilets in our fieldwork.

6 The fact that households in the NFHS-4 are asset-poorer than households in our sample suggests that we may have oversampled better-off households. If so, open defecation is probably more common in the full population than among sampled households. Another possible reason for the discrepancy may be because of differences in timing between the NFHS-4 (2015–16) and our sample (2018)—that is, wealth, electricity, and other dimensions of well-being improved over those 30 months—but given the magnitude of the difference it is likely that much of the discrepancy occurs due to oversampling better-off households.

7 The preface to the defecation behaviour questions was: "We have seen that some people use a latrine to defecate in, and some people like to defecate in the open. Now I want to ask you about where you and your family members defecate." Then, for each individual in the household, the surveyor asked the following question: "Does ____ usually defecate in the open or use the latrine?"

8 Among households that were in the 2014 sample (that is, not considering refresher households), latrine ownership is 73%.

9 Bihar is an exception among these states. The sbm.gov.in dashboard reported "ODF Coverage" of Bihar at "47.70%" on 2 January 2019. Official claims do not always distinguish between open defecation behaviour (ODF stands for "open defecation free") and latrine ownership. In the case of Lok Sabha Unstarred Question No 1818, where these are clearly distinguished, "Sanitation Coverage as on 17.12.2018" for Bihar is 90.75%, which is intended as a measure of households with latrines. Note that we find 49% household latrine ownership in Bihar. For MP, Rajasthan, and UP, sanitation coverage of "100.00" is claimed.

10 See the working paper version for technical details for this Kitagawa decomposition.

11 This includes money, materials, or government construction of a latrine.

12 According to the response to Lok Sabha Starred Question 236 (27 December 2018), expenditure on IHHLs from the central share in Bihar in FY 2018–19 (₹2,608 crore) is almost three times as much as the money spent over the previous three fiscal years.

13 In fact, in Accountability Initiative's 2017 Udaipur study, only one Accountability Initiative's five ST households in villages visited by the survey received a monetary subsidy to construct a toilet.

14 See Coffey and Spears 2017 for more on latrine pits in North India.

15 This refers to latrines that were present at the time of the survey; it does not include latrines that households had received but did not report because they had been taken apart or become defunct.

16 As a part of the efforts to publicise SBM implementation in Udaipur and build momentum, 30 GPs were declared ODF in a period of 30 days.

17 Other examples include old age and widows' pensions, MGNREGA work, Bhamashah entitlements (in Rajasthan), electricity, and other programmes that would require the cooperation of panchayat officials.

18 With standard errors appropriately clustered by village, these differences are statistically significant with a p-value of 0.04 for SCs and less than 0.001 for STs.

19 This pattern has also been documented elsewhere (Geruso and Spears 2018; Vyas and Spears 2018).

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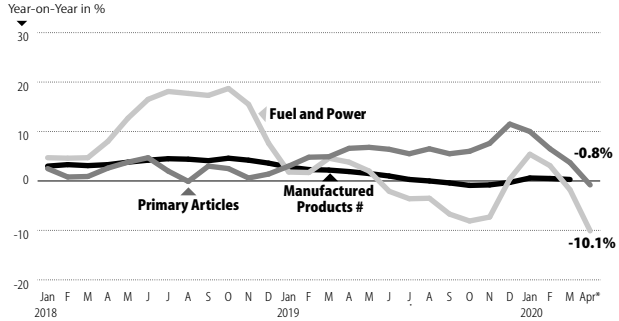
Wholesale Price Index

The annual inflation rate of WPI decreased to 1.7% during April–March 2019–20 from 4.3% registered during the corresponding period of the previous year 2018–19. The index for primary articles declined by (-)0.8% in April 2020 against 6.6% reported a year ago and 3.7% a month ago. The food index decreased by 2.6% compared to 6.4% recorded a year ago and 4.9% a month ago. The index for fuel and power fell by (-)10.1% against 3.8% registered a year ago. The WPI index for all commodities was not computed because of the non-availability of the index for manufactured products.

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 at 6.1% and the urban inflation rate at 5.7% compared to 1.8% and 4.1%, recorded a year ago. As per Labour Bureau data, the CPI-inflation rate of agricultural labourers (CPI–AL) increased to 9.0% in March 2020 from 4.2% registered a year ago while that of industrial workers (CPI–IW) decreased to 5.5% from 7.7% reported a year ago.

Movement of WPI Sub-indices January 2018–April 2020



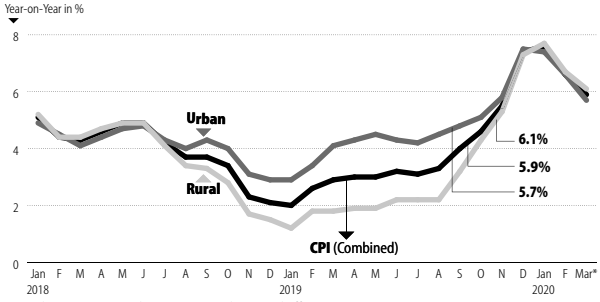
* Data is provisional; Base: 2011–12 = 100. # Manufactured product group index for April 2020 is not available due to the COVID-19 pandemic.

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

	Weights	Over Month	Over Year	Financial Year (Averages) 2017–18	2018–19	2019–20
All commodities	100	-	-	2.9	4.3	1.7
Primary articles	22.6	-0.9	-0.8	1.4	2.7	6.9
Food articles	15.3	0.7	2.6	2.1	0.3	8.4
Fuel and power	13.2	-8.2	-10.1	8.2	11.5	-1.7
Manufactured products	64.2	-	-	2.7	3.7	0.3

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

Movement of CPI Inflation January 2018–March 2020



* March 2020 is provisional; Source: National Statistical Office (NSO); Base: 2012=100.

Inflation in CPI and Its Components March 2020* (%)

	Weights	Latest Month Index	Over Month	Over Year	Financial Year (Avgs) 2018–19	2019–20
CPI combined	100	148.7	-0.3	5.9	3.4	4.8
Consumer food	39.1	147.8	-1.3	8.8	0.1	6.7
Miscellaneous	28.3	143.8	0.1	4.4	5.8	4.4
CPI: Occupation-wise						
Industrial workers (2001=100)		326.0	-0.6	5.5	5.4	7.5
Agricultural labourers (1986–87=100)		1007.0	-0.3	9.0	2.1	8.0

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

Foreign Trade

The trade deficit stood at $6.8 billion (bn) in April 2020 compared to $15.3 bn registered a year ago. Exports declined by (-)60.3% to $10.4 bn from $26.1 bn recorded a year ago. Imports decreased by (-)58.7% to $17.1 bn from $41.1 bn reported a year ago. Oil imports were lower by (-)59.0% to $4.7 bn and non-oil imports by (-)58.5% to $12.5 bn from $11.4 bn and $30.0 bn, respectively, a year ago. During the financial year 2019–20, cumulative exports declined by (-)4.8% to $314.3 bn and imports by (-)9.1% to $467.2 bn from $330.1 bn and $514.1 bn, respectively, recorded in 2018–19.

Index of Industrial Production

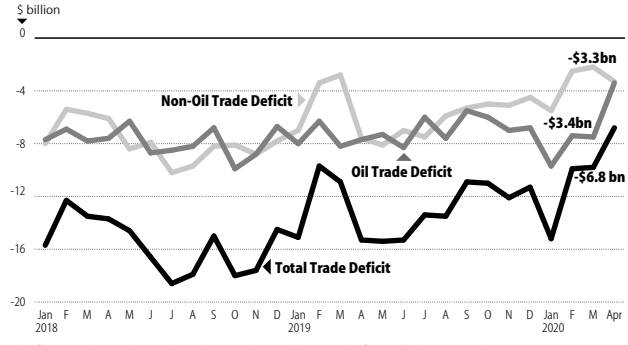
The year-on-year IIP growth rate declined to -16.7% in March 2020 from 2.7% reported a year ago. The index of eight core industries declined by (-)6.5% in March 2020 against 5.8% reported a year ago. Growth rate of crude oil production declined to -5.5%, natural gas to -15.2% and refinery products to -0.5% from their respective growth rates of -6.2%, 1.4% and 4.3% registered a year ago. Production of steel dropped by (-)13.0%, cement by (-)24.7%, fertilisers by (-)11.9% and electricity generation by (-)7.2% against 11.5%, 15.7%, 4.3% and 2.1%, respectively. Coal production decreased by 4.0% compared to 9.1%.

Merchandise Trade April 2020

	April 2020 ($ bn)	Over Month (%)	Over Year (%)	April–March (2020–21 over 2019–20) (%)
Exports	10.4	-51.6	-60.3	-4.8
Imports	17.1	-45.1	-58.6	-9.1
Trade deficit	6.8	-30.7	-55.9	-16.9

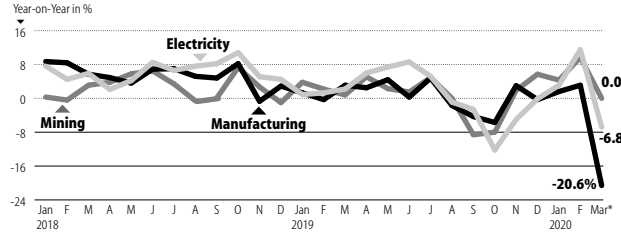
Data is provisional. Source: Ministry of Commerce and Industry.

Trade Deficits January 2018–April 2020



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

Movement of Components of IIP Growth January 2018–March 2020



* March 2020 are quick estimates; Base: 2011–12=100.

Growth in Eight Core Industries March 2020* (%)

	Weights	Over Month	Over Year	Financial Year (Avgs) 2018–19	2019–20
General index	100	-10.0	-16.7	3.8	-0.7
Infrastructure industries	40.27@	1.6	-6.5	4.4	0.6
Coal	10.3	22.7	4.0	7.4	-0.5
Crude oil	9.0	12.4	-5.5	-4.1	-5.9
Natural gas	6.9	2.9	-15.2	0.8	-5.7
Petroleum refinery products	28.0	5.0	-0.5	3.1	0.2
Fertilisers	2.6	-8.8	-11.9	0.3	2.7
Steel	17.9	-6.1	-13.0	5.1	4.2
Cement	5.4	-18.9	-24.7	13.3	-0.8
Electricity	19.9	-3.4	-7.2	5.2	1.0

(Base: 2011–12=100); *Data is provisional; @ The revised eight core industries have a combined weight of 40.27% in the IIP. Source: NSO and Ministry of Commerce and Industry.

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

India's Quarterly Estimates of Final Expenditures on GDP

	2017–18				2018–19				2019–20		
₹ Crore | At 2011–12 Prices	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)
Valuables	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	Q4	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 [12.1]	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

				Variation								
						Financial Year So Far		Financial Year				
Excluding gold but including revaluation effects	8 May 2020	10 May 2019	31 March 2020	Over Month	Over Year	2019–20	2020–21	2015–16	2016–17	2017–18	2018–19	2019–20
₹ crore	3392052	448971	393682	3344616	7209	55289	6869	218620	25300	353270	68050	668976
$ mn	448971	52627	35150	443645	30323	83458	105420	16297	10160	53217	-14168	56831

Monetary Aggregates

		Variation						
				Financial Year So Far		Financial Year		
₹ Crore	Outstanding 2020	Over Month	Over Year	2019–20	2020–21	2017–18	2018–19	2019–20
Money supply (M_3) as on 24 April	17021793	226517 (1.3)	1643189 (10.7)	-53463 (-0.3)	221863 (1.3)	1170657 (9.2)	1469480 (10.5)	1367863.554 (8.9)
Components								
Currency with public	2424823	82972 (3.5)	332756 (15.9)	39858 (1.9)	75107 (3.2)	495583 (39.2)	292496 (16.6)	297506.1357 (14.5)
Demand deposits	1589870	-147789 (-8.5)	123431 (8.4)	-160073 (-9.8)	-147822 (-8.5)	86962 (6.2)	142800 (9.6)	111179.9069 (6.8)
Time deposits	12967530	289940 (2.3)	1175093 (10.0)	70834 (0.6)	293515 (2.3)	585266 (5.8)	1026347 (9.6)	952412.2576 (8.1)
Other deposits with RBI	39570	1393 (3.6)	11910 (43.1)	-4082 (-12.9)	1063 (2.8)	2817 (13.4)	7835 (32.8)	6765.253791 (21.3)
Sources								
Net bank credit to government	5416196	407845 (8.1)	913226 (20.3)	114480 (2.6)	509613 (10.4)	144799 (3.8)	387091 (9.7)	518093.3091 (11.8)
Bank credit to commercial sector	10919048	-119096 (-1.1)	692236 (6.8)	-155907 (-1.5)	-119597 (-1.1)	802225 (9.5)	1169004 (12.7)	655925.2337 (6.3)
Net foreign exchange assets	3870102	115669 (3.1)	726768 (23.1)	72493 (2.4)	71200 (1.9)	364065 (14.2)	148546 (5.1)	728061.5038 (23.7)
Banking sector's net non-monetary liabilities	3209867	177901 (5.9)	689445 (27.4)	84552 (3.5)	239354 (8.1)	140995 (6.8)	235395 (10.7)	534643.7117 (21.9)
Reserve money as on 8 May	3065421	103353 (3.5)	290830 (10.5)	4110 (0.1)	35748 (1.2)	518300 (27.3)	351701 (14.5)	259192 (9.4)
Components								
Currency in circulation	2569559	82662 (3.3)	365831 (16.6)	66957 (3.1)	122280 (5.0)	494078 (37.0)	307423 (16.8)	310508 (14.5)
Bankers' deposits with RBI	457590	21845 (5.0)	-84531 (-15.6)	-59848 (-9.9)	-86298 (-15.9)	21405 (3.9)	36444 (6.4)	-58081 (-9.6)
Other deposits with RBI	38273	-1153 (-2.9)	9530 (33.2)	-2999 (-9.4)	-234 (-0.6)	2817 (13.4)	7835 (32.8)	6765 (21.3)
Sources								
Net RBI credit to Government	1313672	142624 (12.2)	427171 (48.2)	84550 (10.5)	321480 (32.4)	-144836 (-23.3)	325987 (68.5)	190241 (23.7)
of which: Centre	1308132	137403 (11.7)	424895 (48.1)	82764 (10.3)	318391 (32.2)	-145304 (-23.5)	326187 (68.8)	189268 (23.6)
RBI credit to banks & commercial sector	-492475	-54669 (12.5)	-516208 (-2175.1)	-129118 (-84.5)	-291582 (145.1)	372643 (-120.5)	89478 (0.0)	-353744 (0.0)
Net foreign exchange assets of RBI	3652410	21673 (0.6)	727577 (24.9)	76246 (2.7)	62008 (1.7)	363571 (15.2)	87806 (3.2)	741815 (26.0)
Govt's currency liabilities to the public	26315	0 (0.0)	404 (1.6)	23 (0.1)	0 (0.0)	572 (2.3)	236 (0.9)	427 (1.6)
Net non-monetary liabilities of RBI	1434500	6274 (0.4)	348114 (32.0)	27591 (2.6)	56158 (4.1)	73650 (8.8)	151805 (16.7)	319547 (30.2)

Scheduled Commercial Banks' Indicators (₹ Crore)

		Variation						
				Financial Year So Far		Financial Year		
(As on 24 April)	Outstanding 2020	Over Month	Over Year	2019–20	2020–21	2017–18	2018–19	2019–20
Aggregate deposits	13710685	139652 (1.0)	1226816 (9.8)	-89902 (-0.7)	143193 (1.1)	668390 (6.2)	1147721 (10.0)	993721 (7.9)
Demand	1469229	-147741 (-9.1)	117507 (8.7)	-159565 (-10.6)	-147774 (-9.1)	88843 (6.9)	141004 (10.3)	105716 (7.0)
Time	12241456	287393 (2.4)	1109309 (10.0)	69663 (0.6)	290967 (2.4)	579547 (6.1)	1006717 (10.0)	888005 (8.0)
Cash in hand	87571	417 (0.5)	9403 (12.0)	3292 (4.4)	311 (0.4)	-1295 (-2.1)	14811 (24.7)	12384 (16.5)
Balance with RBI	423731	-81400 (-16.1)	-99213 (-19.0)	-42763 (-7.6)	-81400 (-16.1)	16906 (3.3)	40021 (7.6)	-60576 (-10.7)
Investments	3969871	276475 (7.5)	514360 (14.9)	74455 (2.2)	276301 (7.5)	287494 (9.5)	62602 (1.9)	312514 (9.2)
of which: Government securities	3968578	283835 (7.7)	514247 (14.9)	75329 (2.2)	283661 (7.7)	287657 (9.5)	61595 (1.9)	305915 (9.1)
Bank credit	10269258	-102655 (-1.0)	648312 (6.7)	-150777 (-1.5)	-101603 (-1.0)	783965 (10.0)	1146298 (13.3)	599138 (6.1)
of which: Non-food credit	10216615	-103535 (-1.0)	638830 (6.7)	-152328 (-1.6)	-102483 (-1.0)	795906 (10.2)	1146677 (13.4)	588985 (6.1)

Capital Markets

	15 May	Month	Year	Financial Year So Far		2019–20		End of Financial Year		
	2020	Ago	Ago	Trough	Peak	Trough	Peak	2017–18	2018–19	2019–20
S&P BSE SENSEX (Base: 1978–79=100)	31098 (-16.2)	30380	37115 (4.4)	27591	33718	25981	41953	32969 (12.1)	39714.20 (12.4)	29816 (-21.8)
S&P BSE-100 (Base: 1983–84=100)	9264 (-17.7)	9067	11257 (1.4)	8180	9951	7683	12456	10503 (11.5)	12044.07 (9.1)	8693 (-25.2)
S&P BSE-200 (1989–90=100)	3869 (-17.0)	3784	4661 (-0.4)	3416	4140	3209	5185	4433 (12.0)	4986.55 (7.1)	3614 (-25.1)
CNX Nifty-50 (Base: 3 Nov 1995=1000)	9137 (-18.1)	8925	11157 (3.3)	8084	9860	7610	12362	10114 (11.1)	11922.80 (11.1)	8660 (-24.3)
CNX Nifty-500	7504 (-18.1)	7344	9160 (-2.2)	6638	8013	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

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

Secondary Market Transactions in Government Securities and the Forex Market—Weeks Ending 1, 8 and 15 May 2020

1 Settlement Volume of Government Securities (G-Sec) Transactions (Face Value in ₹ Crore)

Week Ended	15 May 2020		8 May 2020		1 May 2020		17 May 2019		2020–21*		2019–20**	
	Number of Trades	Volume	Number of Trades	Volume	Number of Trades	Volume	Number of Trades	Volume	Number of Trades	Volume	Number of Trades	Volume
Outright	14568	245627	12825	232483	9529	202480	17753	210625	64971	1257621	96920	1240047
Repo	2939	425743	2055	319903	2084	307946	2483	273272	13476	2007764	14247	1523458
TREP	4987	1041203	3655	759739	3521	768639	4192	677169	24481	5148720	25668	4024207
Total	22494	1712573	18535	1312124	15134	1279064	24428	1161066	102928	8414105	136835	6787712
Daily Avg Outright	2914	49125	3206	58121	2382	50620	3551	42125	2499	48370	3231	41335
Daily Avg Repo	588	85149	411	63981	521	76986	497	54654	465	69233	445	47608
Daily Avg TREP	997	208241	731	151948	880	192160	838	135434	844	177542	802	125756

2 Instrumentwise Outright and Repo Details (Amount in ₹ Crore)

	Outright	Repo	Outright	Repo	Outright	Repo	Outright	Repo
Central Government	209851	322759	173105	239118	143444	226175	179230	168362
State Government	5123	84385	13575	60675	9115	60672	12173	53336
Treasury Bills	30653	18599	45802	20110	49921	21099	19222	51574
Total	245627	425743	232483	319903	202480	307946	210625	273272

3 Top 5 Traded Central Govt Dated Securities (15 May 2020)

Security Description	Trades	Value (₹ Crore)	% Value to Total
6.45% GS 2029	6878	90660	43.20
7.57% GS 2033	1580	22673	10.80
7.26% GS 2029	1486	20207	9.63
6.18% GS 2024	813	13857	6.60
7.32% GS 2024	784	13383	6.38

4 Category-wise Buying/Selling Activity (Market Share %) (15 May 2020)

Category	Outright		Reverse Repo	Repo	TREP Lending	CBLO Borrowing	NDS Call		IRS MIBOR		IRS-MIFOR	
	Buy Side	Sell Side	Buy Side	Sell Side	Buy Side	Sell Side	Buy Side	Sell Side	Buy Side	Sell Side	Buy Side	Sell Side
Cooperative Banks	4.32	4.00	0.29	0.98	0.57	0.43	73.89	1.51	-	-	-	-
Financial Institutions	0.28	0.15	0.06	0.00	8.72	2.24	-	-	-	-	-	-
Foreign Banks	20.41	25.39	16.86	33.90	0.63	12.64	1.32	0.97	63.75	35.74	97.06	58.44
Insurance Companies	1.51	0.88	4.59	0.00	16.40	0.00	-	-	-	-	-	-
Mutual Funds	11.95	6.00	75.04	0.00	67.22	0.59	-	-	-	-	-	-
Others	3.46	2.88	0.04	1.36	6.28	4.72	-	-	-	-	-	-
Primary Dealers	10.54	13.09	0.60	37.91	0.01	5.81	0.00	48.06	13.54	28.87	0.00	0.00
Private Sector Banks	27.67	30.87	2.37	23.69	0.18	48.38	10.06	33.00	18.88	35.10	2.94	41.56
Public Sector Banks	19.85	16.75	0.15	2.15	0.00	25.20	14.73	16.45	3.83	0.28	0.00	0.00

5 Trading Platform Analysis—Trading Value (Face Value in ₹ Crore) (15 May 2020)

Week Ended	OTC			NDS-OM			Brokered Deals			Total	
	Number of Trades	Volume	Market Share (%)	Number of Trades	Volume	Market Share (%)	Number of Trades	Volume	Market Share (%)	Number of Trades	Volume
Central Government	985	41152	17.02	14680	200697	82.98	95	8684	3.59	15665	241849
State Government	227	2805	39.96	425	4215	60.04	10	359	5.11	652	7021
Treasury Bills	78	4278	12.58	489	29722	87.42	6	415	1.22	567	34000
Total	1290	48235	17.05	15594	234635	82.95	111	9457	3.34	16884	282870

6 Settlement Volume of Forex Segment

Segment	15 May 2020		8 May 2020		1 May 2020		17 May 2019		2020–21*		2019–20**	
	Number of Deals	Volume ($ mn)	Number of Deals	Volume ($ mn)	Number of Deals	Volume ($ mn)	Number of Deals	Volume ($ mn)	Number of Deals	Volume ($ mn)	Number of Deals	Volume ($ mn)
Cash	1234	17072	1036	15844	1052	14818	1526	18906	6782	97196	10560	140103
Tom	1566	22621	1490	21921	1282	16610	2344	25486	8892	121142	17722	193814
Spot	34834	39051	27800	32269	23328	28270	80730	67692	159236	192004	459340	444513
Forward	594	6165	446	4549	15226	109544	1270	11990	19178	151889	23712	192045
Total	38228	84909	30772	74583	40888	169242	85870	124074	194088	562230	511334	970475
Average	7646	16982	7693	18646	10222	42310	17174	24815	6932	20080	17044	32349

7 Tenor-wise Forward Trades

Tenor	15 May 2020			8 May 2020			1 May 2020			17 May 2019		
	Number of Deals	Value ($ mn)	% to Total Value	Number of Deals	Value ($ mn)	% to Total Value	Number of Deals	Value ($ mn)	% to Total Value	Number of Deals	Value ($ mn)	% to Total Value
< 30 Days	73	3467	56.2	35	1509	33.2	558	12957	11.8	267	7522	62.74
> = 30 Days & < = 90 Days	92	1296	21.0	76	1631	35.9	2052	36697	33.5	208	3263	27.21
> 90 Days & < = 180 Days	60	581	9.4	40	518	11.4	1753	28410	25.9	69	483	4.03
> 180 Days & < =365 Days	39	492	8.0	48	619	13.6	2973	29217	26.7	37	241	2.01
> 1 year	33	329	5.3	24	273	6.0	277	2263	2.1	54	481	4.01
Total	297	6164	100	223	4549	100	7613	109544	100	635	11990	100.00

* Data pertain to 1 April 2020–15 May 2020. ** Data pertain to 1 April 2019–17 May 2019.
(i) Tables 1 to 5 relate to Securities Segment, and (ii) Tables 6 and 7 relate to Forex Segment.
Source: Clearing Corporation of India Limited (CCIL).

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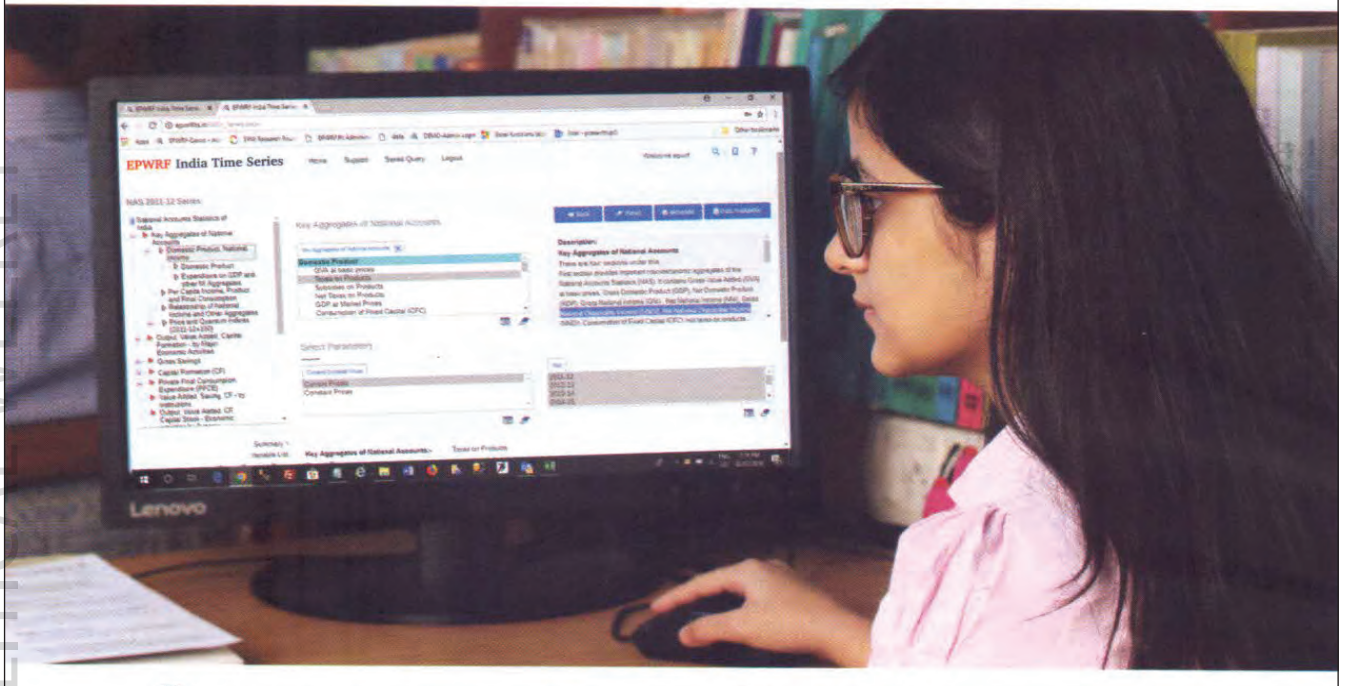

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