



India Exclusion Report 2016

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A young man from Lat, a village in Raigad district of Chhattisgarh, climbs on to a truck laden with coal as it exits a South Eastern Coalfields Limited (SECL) mine. SECL took over 800 acres of fertile farmland and forests the village depended on for firewood and other minor forest produce without offering alternate livelihoods or enough jobs at the mine. While continuing a months-long agitation against unfair treatment meted out to them at the gates of the company, the men began to clamber on to the coal-trucks to level it before it sets out to transport the coal. The men would be able to extract Rs 200-300 from each truck driver for the labour.

Photo Credit: Nikhil Roshan

India Exclusion Report 2016

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Introduction

Why is it always that the same groups of people are excluded from all services, entitlements and rights? Why is it that some of the basic necessities that the state is supposed to offer to its citizens have become privileges for a few sitting at the top of the economic and social pyramid?

Some communities and groups that have been historically excluded for decades, continue to be excluded even today based on the existing inequalities of caste, religion, tribe and gender. These are those who are poor daily-wage earners, Dalits, Adivasis, minorities, women, senior citizens, physically disabled, Scheduled Castes, Scheduled Tribes, transgenders—and their children. With the lack of adequate, meaningful and holistic support from the government, generation after generation from these groups is engulfed in the same vicious cycle.

India Exclusion Report (IXR) is a widely collaborative effort involving institutions and individuals working with disadvantaged and marginalised communities in India. The report seeks to inform public opinion around exclusion and to influence policy making towards more inclusive and equitable governance. It is also meant to serve as a tool to support public action for the greater inclusion of marginalised communities in the country.

The third annual report by the Centre for Equity Studies in New Delhi, *India Exclusion Report (IXR) 2016*, for the first time, explores the exclusion from the “public good” of digital access. In the chapter *Exclusion from Digital Infrastructure and Access*, which has been written by researchers at Digital Empowerment Foundation (DEF), digital inclusion has been defined as a “wagon to social inclusion that ensures individuals and disadvantaged groups have access to Information Communication Technologies (ICTs) and the skills to use them to be able to participate in and benefit from an increasingly electronically mediated knowledge economy and information society”.

This version of the report reproduces DEF’s chapter along with human rights activist Harsh Mandar’s introduction to the book, originally published in *India Exclusion Report 2016*.

To read the full report, click [here](#).

Osama Manzar
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Public Goods, Exclusion and 25 Years of Economic Reforms

A Blotted Balance Sheet

Harsh Mander¹

I

India's global rankings made the headlines at least twice in 2016, and both times the news was dampening. The first report revealed that India's place in the Global Hunger Index compiled by IFPRI fell from 83 in 2000 to 97 in 2016 (*Business Standard*, 2016), with India scoring even worse than its much poorer neighbours Bangladesh and Nepal. The second disclosed that India's rank in the World Bank's Ease of Doing Business Report rose by only one position, from 131 the previous year to 130 (*The Hindu*, 2016), among 190 countries.

The tardy improvement in India's Ease of Doing Business global rating led to immediate official statements of concern in the corridors of power. Commerce and Industry Minister Nirmala Sitharaman said she was 'disappointed', and Prime Minister Modi directed secretaries of the union government and chief secretaries of state governments to analyse expeditiously the reasons for sluggish progress, and identify areas for improvement both in central government departments and the states.

India's dismal performance in fighting hunger, however, attracted no similar comment or the articulation of concern at senior levels of the union government. The volubility of the government on one and the silence on the other is in itself an eloquent commentary on the priorities of the

government, a reflection of who it feels primarily responsible to.

What does a low ranking in the Global Hunger Index (GHI) indicate? It means first that too high a proportion of India's people (around 15 per cent) are under-nourished (*The Times of India*, 2016). It means that too many children under the age of five (15 per cent) are wasting, reflected in low weights for their heights. And too many are stunted (a shameful 39 per cent), meaning that their bodies are adjusting to chronic low nutrition by becoming shorter for their ages. And finally, it means that too many children (4.8 per cent) die before reaching the age of five years, because of the fatal cocktail of too little nutritious food and highly unhealthy environments.

It is important to remember that what for the scholar is 'under-nutrition' is for people who live with this condition the anguish of being unable to feed oneself or one's loved ones, of reduced physical and mental capacities, and of succumbing to infections or circumstances that they would have been able to fight if they were well-nourished. Stunting and wasting means that the bodies and minds of millions of our children are being starved into feebleness. Under-five mortality means the agony of millions of mothers and fathers who are helpless as they lose their children only because of their dirt-poverty.

Compared to other countries, India's government is simply doing too little to prevent this enormous

and entirely preventable suffering of millions of impoverished citizens. And the silence of the government about these continued failings can only mean that it is not stirred or shamed by this report card, that there is still little urgency to alter the destinies of India's poorest majorities—rural, slum-based, informal workers, women, tribal, Dalit, minority, disabled groups, aged people, single women, and above all children from all these groups.

It is not as though there has been no improvement in India in each of these parameters in recent years. In 2013, India's position was rated as 'alarming'; today it is slightly better at 'serious'. In 2016, India's GHI score was 28.5, an improvement over 36 in 2008. Since 2000, India has reduced its GHI score by a quarter. But 20 countries, including much poorer countries like Rwanda, Cambodia, and Myanmar, have all reduced their GHI scores by over 50 per cent since 2000.

So, the problem is not that India is doing nothing to end hunger. But its improvements are much slower than even countries which are often much poorer, not self-sufficient in food production, without functional democracies, and sometimes strife-torn. India's GHI score places it fifth from the bottom in Asia: only Afghanistan, Timor-Leste, Pakistan, and North Korea trail behind India. This surely is not illustrious company for an India that prides itself as the world's fastest growing economy. The report estimates that if India continues to reduce hunger at the same pace, it will still be in the 'moderate' to 'serious' hunger zone in 2030.

India's failures to reduce and end hunger, poor health and early deaths, resulting in immense suffering of millions of its people, is even more unconscionable because all of this is preventable. India has the food production, the levels of growth, the economic resources and the state capacities that it requires if it resolves to make hunger history. Countries which have overtaken India often lack many of these advantages. India's failures

are not inevitable. They are the direct result of its public policy priorities and choices: its market fundamentalism and its refusal to invest adequately in the nutrition, education, social protection and health of its people.

India's continued trouncing in its battle against hunger stems first from its very low investments in agriculture, as a result of which India's food producers constitute its largest ranks of the hungry and malnourished. For a sector that gives work to around 55 per cent of the population, the government invests less than 4 per cent of public resources. Even within this small investment, the overwhelmingly large mass of the rain-fed small peasant are most neglected. India's failure to ensure decent work to nearly nine of its 10 workers trapped in informal work also explains India's losing hunger battle. India's high growth is mostly jobless growth, which erodes completely the rationale for privileging business interests over those of impoverished populations. The historical inequities of gender, caste, tribe and religious minorities further aggravate those created by inequalities of wealth.

Upstream sources of India's disgraceful hunger record include also its investment of just a little over 1 per cent of GDP in public health, lower than most countries of the world, and its chronic miscarriages in securing sanitation and clean water to all its populations. Downstream we see continuing chronic under-resourcing and corrupt implementation of important food and nutrition programmes such as the ICDS and school meals, the public distribution system, pensions for older persons, single women and the disabled, and maternity benefits.

To address some of these, India passed the National Food Security Act 2013, which sought to guarantee half the calorie needs of two-thirds of the population, as well as universalize maternity benefits, young child and mother feeding, and school meals. But even when such Acts are passed, they are

rarely acted upon with diligence and commitment. The union government and many states remain reluctant and neglectful in operationalizing these entitlements.

All of these point to not just morally reprehensible failures of the state, but to a much deeper social and cultural malaise. That the lives, deprivations and suffering of the poor do not matter. In this way, the Global Hunger Index is an indictment not just of our governments, but also of middle-class India itself, holding up a mirror to how little it cares.

* * *

This is the third in the annual series of India Exclusion Reports, in which the Centre for Equity Studies has tried to bring together a wide range of policy thinkers and actors, scholars, social advocates for more just and inclusive laws and policies and people of disadvantage themselves, together to examine carefully the record of the Indian State to ensure greater inclusion and access to the large mass of deprived and oppressed peoples. This is a modest effort, yet we are gratified to find that there are a growing number of readers of these reports who agree with the value of an enterprise like this that tries to create an informed report card about whether governments in India are ensuring equitable access of vulnerable communities to a range of public goods, but also to look closely at the most vulnerable communities as well. Considering that this year also marked the end of 25 years of neo-liberal growth which promised to erase poverty faster than was possible in the past, this report assumes for us a larger significance.

The time had come, we are convinced, to think of a stable long-term institutional arrangement for the series of India Exclusion Reports. This is an experiment drawing many diverse actors and thinkers from many different silos but all concerned with a more just and humane society and State to write and reflect together. In that spirit, we believe that the structure that holds

this enterprise of conceptualizing, researching, writing and disseminating the India Exclusion Reports should also be highly collaborative and plural, well outside the control of any one person or institution.

We are therefore proud that a number of leading international and national centres have joined the Centre for Equity Studies formally in this enterprise. These include Brown University, the International Institute of Social Studies in the Hague, and the Institute of Development Studies in Sussex; as well as leading national organizations including NALSAR University of Law, Hyderabad, which is one of India's best national law schools with an equity focus, the Indian Institute of Human Settlements, Bangalore which specializes in urban studies, a premier social science research institution, and the Centre for Budget and Governance Accountability. This partnership is based on a shared approach in terms of our understanding of issues of exclusion, social justice and the role of the state. Our attempt is to ensure that the Exclusion Reports are strongly evidence-based, empirical and carefully peer-reviewed, to which all our collaborators and now joint owners contribute in many ways. But while all of these have independent programmes and views on many issues, all the many contributors and collaborators of these reports are bound together by shared normative and political convictions related to ideas of the just state, the just society, equity and solidarity.

In this overview chapter, we will try to summarize some of the highlights of the findings of this report. But before we do this, we felt since a quarter-century has passed since economic reforms were heralded in India, it would be fitting for the purposes of this report to reflect on what 25 years of economic reforms has meant for the massive underclass of India's disadvantaged people.

* * *

It was 25 years before this current report was being compiled, on 24 July 1991, when the then Finance Minister Dr Manmohan Singh rose in Parliament to present a budget speech which was to alter the destinies of India and its people in fundamental ways. He spoke in his characteristically gentle, low-key and self-effacing manner disguising a steely resolve. His words were memorable even if debatable. Quoting Victor Hugo, he said, ‘No power on earth can stop an idea whose time has come’. He declared that ‘the emergence of India as a major economic power in the world happens to be one such idea. Let the whole world hear it loud and clear. India is now wide awake. We shall prevail. We shall overcome.’

The legacy of that moment remains highly contested. A quarter-century later, India is indeed a major economic power, altered in fundamental ways from the country that Dr Singh helped steer in new directions. With a GDP of 2 trillion dollars, it has edged itself among the 10 largest economies of the world. But in what ways have economic reforms, launched with this historic budget speech, contributed to changing the lives of India’s dispossessed millions? Has it, as was promised, hastened the end of poverty and want, ensured greater access to public goods to hitherto excluded populations, spurred jobs and incomes, and reduced state corruption? As we look back on the past 25 years, it is important to draw up a careful balance sheet especially from the vantage point of the oppressed people of India, of what the promises were and what was actually accomplished after India changed course so fundamentally 25 years ago.

The ‘structural reforms’ that Dr Singh announced, and which every successive government elected to the union government with varying urgency and priority has since advanced, made way for global private enterprise to enter and increasingly occupy the commanding heights of the Indian economy. Until then these were dominated by the State. The

reform package opened the economy to global competition; it stressed on fiscal consolidation and discipline for macro-economic stability; it liberalized trade and capital markets; it dismantled the justly notorious licence-permit raj that stymied local enterprise by rent-seeking; and it facilitated and expanded competitive private provisioning of public goods like health, education, public transport and infrastructure.

There were three main promises of economic reforms. The first was that these would unfetter the economy and spur economic growth and development. The second was that growth would crank up manifold the creation of wealth and jobs, and through this would erase poverty, hunger and want. And the third was that reforms would significantly reduce corruption and rent-seeking by ending licencing and bureaucratic regulation of private enterprise.

Let us take each of the promises, and assess with the hindsight of a quarter-century what indeed was accomplished and what were the intended and unintended consequences of these reforms.

There is no doubt that reforms did hasten economic growth to rates that were double, and even at times three times the pace of growth that the country had settled into until then in four decades since India’s freedom. Twenty-five years later India is the fastest growing economy in the world. It has also created unprecedented levels of wealth (however unequally distributed), so that today India is home to the third largest population of dollar billionaires in the world (Hurun Report, 2015). The ranks of middle-class Indians have grown, as they have transitioned from lives of customary austerity to substantial improvements in their material well-being, from habitual thrift to unrestrained and unapologetic hyper-consumption. This massive enlargement of wealth has also meant that governments in India at all levels—union, state and local—have far greater

resources in absolute terms available to them for public investment and spending than they did in the past. India's budgetary spending on social sectors in 1990–91 was approximately 6 per cent of its GDP which rose to 8 per cent in 2014–15 (Indian Public Finance Statistics 2014–15). (Although because of official reluctance to expand India's direct tax base significantly, public spending as a share of gross domestic product remains one of the lowest in India among comparable countries).

This is however where we feel that the 'good news' of economic reforms ends. Reforms did stimulate high economic growth and yield greater wealth creation. But this wealth was very unequally distributed, raising sharply levels of economic inequality in a country that was already historically profoundly unequal. Advocates of free markets, opposed to building a welfare state, have long argued that accelerated market-led economic growth in India has lifted millions out of want in ways that direct state support could never have done. They suggest that poverty is vanishing in India, and those who still advocate large-scale public action in support of the poor are caught in a time-warp, failing to recognize that the lives of India's poor have altered dramatically in the quarter-century of neo-liberal reforms.

In India, from two resident billionaires with an income of 3.2 billion in the mid-1990s, their numbers grew to 46 with the combined wealth of 176 billion in 2012, and their share in GDP rose from 1 to 10 per cent. A recent report by Oxfam titled 'Even It Up' observes that income concentration at the top fell in the first three decades after Independence, but since then for the top 0.01 per cent real wages grew annually at 11 per cent. By contrast, the rise in real household expenditure for the rest of the population rose by only 1.5 per cent. In agriculture, growth in real wages was 5 per cent in the 1980s, but fell to 2 per cent in the 1990s, and virtually zero in the 2000s. If judged by the median developing country poverty line of 2 dollars a day on purchasing power parity, more than 80 per cent

rural and just below 70 per cent urban inhabitants in India continue to be impoverished.

As Oxfam Director Byanyima observes:

A child born to a rich family, even in the poorest countries, will go to the best school and will receive the highest quality care if they are sick. At the same time, poor families will see their children taken away from them, struck down by easily preventable diseases because they do not have the money to pay for treatment (Even It Up, Oxfam, 2014, p. 2).

The unfairness of this unequal world is indeed enhanced because the majority of richest persons are born into their wealth. Children and grandchildren of the rich will largely replace their parents and grandparents in the steep economic ladder, as much as children and grandchildren of the poor will remain impoverished, regardless of their potential and hard work.

In India, the burdens of unequal birth weigh heavily on those born into disadvantaged castes, gender, religion and tribes. In the countryside, poverty rates are 14 per cent higher for Adivasis and 9 per cent for Dalits, compared to non-scheduled groups. In urban areas likewise, the poverty of Dalits and Muslims is 14 per cent higher than the others (*The Hindu*, 2015).

A report of the OECD countries in 2011 titled 'Divided We Stand: Why Inequality Keeps Rising' observed that inequality in earnings has doubled in India over the past two decades, making it one of the worst performers among emerging economies. The report noted that the top 10 per cent of wage-earners make 12 times more than the bottom 10 per cent, compared to six times 20 years ago. India's experience contrasts with that of Brazil, Indonesia and, on some indicators, Argentina, which recorded significant progress in reducing inequality during the same period, unlike China, India, the Russian Federation and South Africa which have all become less equal over time.

I worry not just about the rapid pace of growing inequality. Even more worrying is the indifference, the absence of outrage, among people of privilege about the monumental levels of preventable suffering that surrounds them. As I argue in my recent book *Looking Away: Inequality, Prejudice and Indifference in New India*, historical ideas of caste and class that justify inequality have been topped up in neo-liberal times with the belief that greed is good (Mander, 2015). This has resulted in a particularly uncaring middleclass, and the exile of the poor from their conscience and their consciousness. The Oxfam report calculates that if even a tax of 1.5 per cent was imposed on the wealth of all the world's billionaires, it could get every child into school and deliver health services in all the poorest countries of the world, saving an estimated 23 million lives (2014, 9). It estimates that if India just stops inequality from rising, it could end extreme poverty for 90 million people by 2019. If it reduces inequality by 36 per cent, it could eliminate extreme poverty.

Akhil Gupta is troubled by similar questions, when he calculates that the number of 'excess deaths'—the number of people missing from the population due to malnutrition and morbidity—is over 2 million deaths annually. 'Nevertheless, the system of checks and balances composed of the free press, and the democratic, multi-party, competitive political system that, as Amartya Sen (1999, 180–182) claims, has been so effective in sounding the alarm of impending famine, drought, or natural disaster, has failed to mobilize state and private resources to prevent a disaster of these proportions'. (Gupta, 2012, p. 5) It is the normalization of what 'should be considered exceptional, a tragedy and disgrace, but is not: the invisible forms of violence that result in the deaths of millions of poor, especially women, girls, lower-caste people, and indigenous people' that results in the persistence of such a magnitude of preventable deaths with no effective outrage. He speaks of former Finance

Minister Chidambaram saying in an interview to the BBC that he is confident that poverty will end by 2040, in effect advocating as a positive achievement a plan to eradicate poverty that essentially sacrifices an entire generation.

Advocates of neo-liberalism still valorize these reforms by suggesting that it matters little that inequalities rise because of the success of these reforms to eliminate poverty, at a pace and scale that was impossible in the pre-reform period. Jayati Ghosh however contradicts this claim, demonstrating that pre-reform periods had slower growth-rates but still eliminated poverty at a higher rate than in the reform period. For rural India, poverty was reduced by -1.24 per cent in the period 1973–74 to 1987–88 and -0.64 in the period 1987–88 to 2014–15; and for urban areas, -0.79 per cent in the period 1973–74 to 1987–88 and -0.74 in the period 1987–88 to 2014–15 (Ghosh, 2011, p. 134). Even the World Bank, otherwise a strong advocate for reforms, admits this. It observes that the aggregate headcount poverty ratio in India declined from 59.8 per cent in 1981 to 51.3 per cent in 1990 and 41.6 per cent in 2005. So, according to the World Bank, the rate of poverty reduction *slowed* from 0.94 per cent points per annum during 1981–90 to only 0.65 per cent points per annum during 1990–2005 (*The Times of India*, 2008). This busts the myth that liberalization and the incumbent growth has hastened the rate of reduction of poverty. Yes, poverty has reduced in these 20 years, but this in itself cannot be a matter of approbation because poverty can be expected to fall between any two points in time, but the real question to ask is whether neoliberalism has pushed the process of reduction in poverty or has it done to the contrary.

Levels of absolute poverty have no doubt declined, as have malnourishment and hunger. But the question to ponder is whether these have declined fast enough. Even neighbouring Bangladesh with half India's per capita income has been able to eliminate want and malnourishment

far more successfully than India, as underlined again in the recent 2016 Global Hunger Report.

There are further problems with the extremely minimalist definitions of poverty adopted by the Indian government. Therefore, when neo-liberal advocates promise to 'wipe out poverty' by 2040, all that they are promising even at this slow pace is an end to starvation-level poverty. Ghosh calculates that if we use an even slightly higher cut-off of \$1.25 per day at the revised 2005 PPP\$, the number of absolutely poor people in India in 2005 were 456 million, i.e., significantly more than the Indian government's own estimate of 301 million in 2005–6. In 2005 India had the second highest poverty ratio (54.8 per cent) among all the Asian countries studied, next only to Nepal (55.8 per cent) and higher than Bangladesh (42.9 per cent), Cambodia (36.9 per cent), Bhutan (31.8 per cent), the Philippines (29.5 per cent), Pakistan (24.9 per cent), Indonesia (24.1 per cent), Vietnam (16 per cent) and Sri Lanka (9.9 per cent). If we use the global yardstick of 2 dollars a day, the numbers of poor people in India would even today be around 80 per cent of the population (Himanshu, 2008, 38–43).

The burdens of poverty and want are even higher in the countryside. The picture of rural Indian life today that emerges from what is probably the world's largest study ever of household deprivation, the preliminary results of the Socio-Economic Caste Census (SECC), is sobering and sombre. It describes a massive hinterland still imprisoned in persisting endemic impoverishment, want, illiteracy and indeed hopelessness. With hand-held laptops, official enumerators were commissioned to ask members of all households in the country a few basic questions, including what they owned, how they earned a living, how much they earned, and how far they had studied. Their findings tell us first that in three in four rural households no one earns more than INR 5000 a month. More than nine out of 10 rural households have no one earning over INR 10,000 a month.

Prime Minister Modi in his midsummer 2014 election campaigns often spoke of the aspiring youth, restless and impatient to join India's growth story. The SECC results again offer a dismal reality check. Only 3 per cent of rural households have even a single member with a graduate or postgraduate degree. On the other hand, more than a third of rural India is still illiterate. A quarter of these households have no literate adult above 25 years. Less than one in five households have one or more family members with primary education, whereas only 13.5 per cent have anyone who made it to middle school. This means that more than half of rural Indians still have no or only minimal skills of reading and writing. If they can share in India's growth story, as we will observe, it can only be in adding to its already mammoth reserve army of cheap and footloose labour.

The SECC mandated officials to survey every single household in the country, which contributes to its importance and credibility. It is a census, not an estimate. All large official surveys however tend to neglect invisible populations, such as forest dwellers, nomadic communities, footloose distress migrants, bonded workers, and people stigmatized by their vocations, sexuality or ailments. These populations are invisible to state officials because of their extreme vulnerability and powerlessness, and as a survival strategy they often also hide from the State. Moreover, although rules required that the survey results be ratified in open community meetings, this was rarely done. Far from overstating the situation, therefore, it is likely that in fact the SECC significantly underestimated levels of poverty and deprivation.

Jayati Ghosh, comparing India's and China's experience in fighting poverty in periods of high economic growth, argues that China does better than India because of pre-reform egalitarian measures such as land reforms and universal elementary education, and because of high public spending during reforms especially on infrastructure. India

by contrast has almost starved agriculture with negligible public investments although it still employs 50 to 60 per cent of the workforce, and it also continues to neglect basic education, and indeed health care. Unlike China, which followed the classical trajectory of agriculture to manufacturing, India has shifted to the services sector, still leaving millions in low-end, low-productivity employment in the countryside. India's human poverty is even more dismal than income poverty, as reflected in India's falling position in the Global Hunger Index to which we referred earlier (Ghosh, 2011, 113).

The lesson that Finance Minister Arun Jaitley drew from the incontrovertible SECC findings about the dismal situation of rural Indians, still trapped in age-old poverty, was predictably to call for a further hastening of India's economic growth. This would mean administering more of the familiar medicine of market fundamentalism: reducing public spending further on education, health and agriculture, combined with further weakening labour protections and safeguards against land acquisition. Instead we are convinced that we must heed the resounding message of the SECC, as also of the unending epidemic of farmers' suicides and the continuing distress exodus from India's countryside: that India does not shine for its teeming villages. This challenge requires an entirely different set of prescriptions: much greater public spending on rural infrastructure, watershed development and small-farm agriculture, farmers' income protections, MNREGA, education and health, and reviving land reforms. Without these, rural India, still home to a vast majority of Indians is fast becoming a wasteland of distress and despair.

* * *

The promise of reforms which have been most spectacularly belied in India is that reforms and galloping growth would unleash millions of jobs. If they actually did so, it is claimed by reform votaries that then this would not just lift people out of

poverty; it would also make increasingly irrelevant state withdrawal from supplying basic public goods like health and education, because people would be able to buy these competitively in the market. However, the reality of what was accomplished in the years of the high noon of economic growth in India was certainly the accelerated but unequal expansion of wealth, as observed, but not the expansion of decent work for India's poor.

On the contrary, we have seen the reverse: the shrinking of decent work in the sunshine years of highest growth. As Coen Kompier establishes in the India Exclusion Report 2013–14 undertaken by the Centre for Equity Studies, 'very few jobs have been added, mostly of low quality, whereas employment opportunities in public enterprises, the formal private sector, and agriculture *actually declined*' (my emphasis). In the decade 1999–2000 to 2009–10, while GDP growth accelerated to 7.52 per cent per annum, employment growth during this period was just 1.5 per cent, below the long-term employment growth of 2 per cent per annum, over the four decades since 1972–73. Only 2.7 million jobs were added in the period from 2004–10, compared to over 60 million during the previous five-year period. (Kompier *et al.*, 2014, p. 111)

Far from the promise of more jobs and more opportunities, the reality has been of more uncertainty, lesser job creation and far less security. Even the government has had to reluctantly admit that 'the economy has indeed experienced high rates of growth in the post reforms period [;] the optimism on employment creation, however, has not been realized to the fullest extent' (Report on Employment & Unemployment Survey 2009–10).

It is significant that employment in the organized sector actually fell after 1997, while that in the unorganized sector rose. The 2009 report of the official National Commission for Enterprises in the Unorganized Sector finds that the vast majority of jobs created in recent years have been in the

informal sector, in the absence of a legal framework for labour protection and social security. Out of every 100 workers, the report revealed, around 90 per cent work in the informal economy producing half of India's economic output. This implies that out of a current total workforce of around 475 million, around 400 million workers, considerably larger than the total population of the USA, are employed with little job security or any formal entitlements to call upon the protection of the labour law regime. (Live Mint, 2014)

And for the tiny number of jobs that are being created, written job contracts with formal agreements and associated legal responsibilities (at least on paper) are already an endangered or near extinct mode of employing workers. About 93 per cent of the casual workers do not have any written job contract while the figure for the same among contract workers is 68.4 per cent. Even among the supposedly more formal wage/salaried employees, about 66 per cent of employees are reported to be working without a written job contract. As per government estimations, labour relations in such instances are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees.² Beyond the realms of the formal/legal, it is the omnipresent extra-legal modes of mobilization and disciplining (harnessing caste, kinship or community relations) that has received further fillip with the larger trend towards informalization and casualization of the workforce.

The worst-hit once again, unsurprisingly, are rural workers. The SECC survey referred to earlier also reveals that 56 per cent rural households own no land. Around half the rural households report that they depend primarily on manual labour to survive. Economist Prabhat Patnaik observes:

Our share of cultivators has actually fallen since 1951. A whole set of people who might have been independent peasants...have been pushed into the ranks of agricultural labour....They have no

rights, no security of income, they are subject to the worst kind of drudgery because it is all manual work: they cannot be organised. It's just a miserable state of existence (*Hindustan Times*, 2015).

Since the stagnant rural economy offers meagre opportunities for employment, a large segment of these households are footloose circular distress migrants, evocatively described by labour anthropologist Jan Breman as 'hunters and gatherers of work' (Breman, 1994) In order to stay alive, they will go to any corner of the country, to do any work, with any remuneration, on any terms. An estimated 12.24 million people are seeking work for 2–6 months as per NSSO data. Of these, 77 per cent are resident in rural areas and more than two-thirds of them migrate in desperate search of any kind of work to urban areas. Some estimates show that about 35–40 million labourers, almost half the number of casual labourers outside agriculture, could be seasonal migrants.

These are the migrant workers toiling in the prosperous rice, wheat, sugarcane and cotton farms of Punjab, Haryana, Western UP and Maharashtra, construction workers building high-rise structures in cities across the country, semi-bonded workers in brick kilns which pockmark the country, workers building roads in conflict-prone frontier states, and so on. Often boys barely in their teens set out for distant lands to earn some money to keep their families alive. But now increasingly families migrate along with men, interrupting children's schooling, forcing women to bear and raise children on dusty city streets and shanties, and leaving behind old people in the village to starve, beg or die.

These findings are also incidentally another reminder of the potential contributions of what has been described as the world's largest social protection programme, the MNREGA. When he dismissed this in Parliament as a living monument to earlier governments' failures, Prime Minister Modi

demonstrated little sensitivity to the struggles of distress migration that millions of rural households still have to endure, which could be prevented by the State's effective guarantee of safe and dignified wage work in the vicinity of their homes, enabling them to escape their annual uprooting to distant lands.

Prime Minister Modi's most powerful election promise in 2014 for millions of young voters was to create 10 million jobs. With 65 per cent of the country below 35 years, this promise undoubtedly drew millions of young people who legitimately dream of a better life to cast their futures with his leadership. A million new young people join the workforce every month. This does not account for those who seek work in the cities because of the near-death of the rural economy.

Yet more than half-way through his tenure, there are almost no jobs available. Job creation has fallen to levels even below those that the preceding UPA governments plunged to. Official data reveals that employment creation in 2015 plummeted to a mind-numbing low of 135,000 jobs (Figure 1).

The picture is even more complex, because jobs are being extinguished even as others are being created, and net figures hide this. More and more people are being pushed into either lowest-end self-employment or the most unprotected and casualized wage employment. The countryside is of course the worst affected. But the situation is almost as hopeless for the distress migrant to the city. As Colin Todhunter observes in a biting indictment, 'much mainstream thinking implies that shifting people from agriculture to what are a number of already overburdened, filthy, polluted mega-cities to work in factories, clean the floors of a shopping mall or work as a security guard improves the human condition' (Todhunter, 2013).

* * *

The third big promise of economic reforms—that the dismantling of the proverbial licence-permit raj would help greatly reduce corruption and rent-seeking—has also been belied spectacularly.³ Far from reducing corruption, official malfeasance has risen incrementally. In the 1980s, the Bofors scandal alleging a kickback of around INR 80 crore

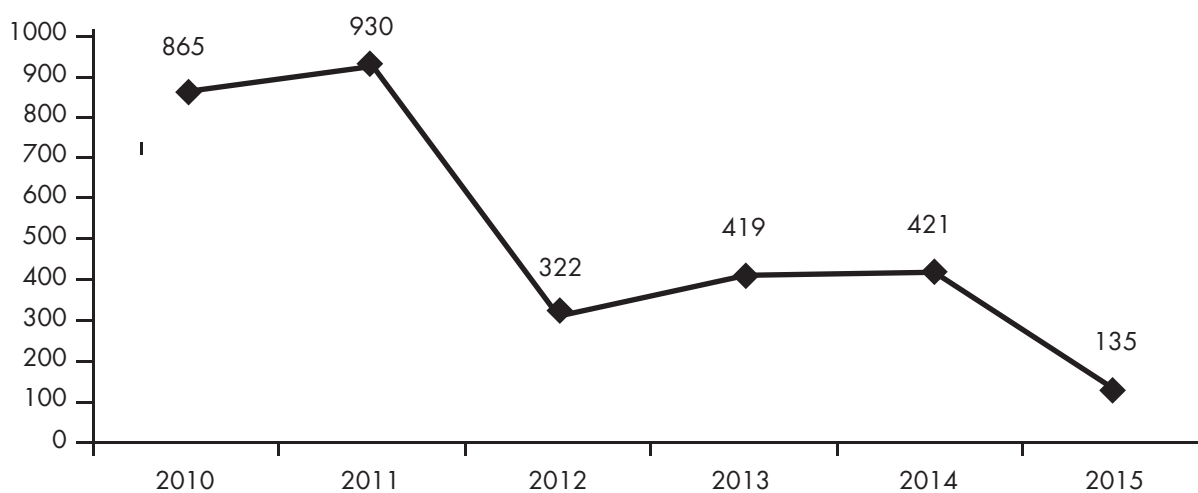


Figure 1: Yearly Changes in Estimated Employment Based on Survey Results (In thousands), from January to December

Source: Compiled from the Quarterly Report on Changes in Employment in Selected Sectors; Government of India Ministry of Labour & Employment Labour Bureau.

for the purchase of Swedish weapons had fatally shaken the union government of the time led by Rajiv Gandhi. Today we routinely observe crony capitalism involving losses to the public exchequer sometimes of amounts that have so many zeroes that it is confusing to even count! The culture of public life has changed dramatically. For the first half-century after Independence, accepted norms for probity in public life required that public officials kept a careful public distance from private business. Today they are so closely bound together at the hip that it is routine for people in high office to benefit from and share the opulent lifestyles of the super-rich, and they pass this off as contributions to nation-building. One particularly tragic outcome of this contemporary era of crony capitalism is the highly accelerated dispossession, actively facilitated by state authorities, of India's most impoverished tribal communities, by big industry hungry for the coal and mineral reserves over which their forested habitations lie.

Another outcome of the new age of crony capitalism is very high public subsidies for big business, reflected for instance in the over INR five lakh crore of revenues foregone to industry in every budget, and this at the expense of adequate public funding of health care, education, water, sanitation and social protection, and the farming sector. This has led development economist Jean Dreze to describe India as a world champion of social under-spending! (*The Hindu*, 2014) In particular, out-of-pocket expenditure on health care is at twice the level of public spending, a disgraceful record unmatched by most countries. Our public schools are shamefully under-resourced with trained and motivated teachers and basic infrastructure, and only seven per cent people are still able to complete their college graduation. Nine in 10 persons are in informal employment, and they are deprived of any or adequate pensions in their old age.

We can only glance over some of the mindboggling amount of debts that various top

companies owe to the different public banks of the country: Anil Ambani (Reliance Group) (1,25,000 crore), Anil Aggarwal (The Vedanta Group) (1,03,000 crore), Goutam Adani (Adani Group) (96,031 crore), Shashi Ruia & Ravi Ruia (Essar Group) (1,01,000 crore), Sajjan Jindal (JSW Group) (58,171 crore), GVK Reddy (GVK Group) (33,933 crore), Manoj Gour (Jaypee Group) (75,163 crore), Venugopal Dhoot (Videocon Group) (45,405 crore). These are just a few examples of the corporate loan that remains unpaid in various nationalized banks, thereby starving these banks of the total cash deposit.⁴ The SBI which is the biggest nationalized Bank has written off in the year 2016 alone loans worth INR 7,016 crore owed by more than 60 of its top 100 'wilful defaulters.' Among them is the absconding Vijay Mallya, whose outstandings with the bank are in the range of 1,201 crore (*The Indian Express*, 2016). This same SBI in the very recent past has also showered other such 'wilful defaulter' business tycoons with huge loans, flouting RBI guidelines. Niranjana Hiranandani who was declared a defaulter by RBI in 2014, was sanctioned two loans amounting to INR 5,550 crore by SBI and AXIS Bank in 2015 and 2016 (*DNA*, 2016). Recently, the SBI has given a loan of INR 1 billion to Mr Gautam Adani to secure his mining deal in Australia (*The Indian Express*, 2014). So these corporate tycoons are running their businesses, literally on public money in order to fill the coffers of the corporate via the bank. The cosy relationship of several of these 'captains' of big industry with India's top political leaders is the best-kept open secret of India's public life.

According to a recent estimate by the Global Financial Integrity programme of the Centre for International Policy, the money that had illicitly flown out of India to accounts abroad over its post-Independence history stretching from 1948 through 2008 was around \$213 billion, the present value of which equals 36 per cent of India's GDP in 2008. But what is even more telling is that out of

\$462 billion siphoned out of India during the last 61 years, 68 per cent is attributable to the post-reform period of just 18 years (*The Hindu*, 2010).

While corrupt practices have always existed, in these neo-liberal times the definition has gotten far more blurred. This is precisely because deregulation and the predominance of financial capitalism ensures that what would earlier be characterized as corrupt practices, has now not only been normalized and 'legalized', but also encouraged. Unlike earlier, cosyng up with big capital no longer raises eyebrows or elicits frowns in public discourse. Rather the neo-liberal morality has ensured that governments vie with each other in being cosier with corporations than the other. This runs in the name of 'development' or 'investment friendly' or 'pro-business'. In a world where profit-making and the accumulation of wealth is celebrated and rewarded, where it is the 'bottom line' that finally matters, unless circumstances lead to the detection of fraud or a violation of the law, an increase in the wealth of a private sector player is normally seen as a virtue and reflection of 'entrepreneurship' and 'innovation'.

Analysts have also observed that one cannot identify corruption today by looking for illegal activity alone. Many of the practices that happen in rich and poor countries are legal or in a grey area where it's difficult to tell the criminal from the lawful. It is possible to argue that finance capital is by definition corrupt. Investment banks typically do not disclose their fees to investors in advance (they call their charges 'consideration') by deducting self-decided amounts as they go along. Free charging professionals like lawyers, and in many countries doctors and dentists, make up their own huge fees. Isn't this corrupt? But there's nothing illegal about it (Phil Hearse, 2016).

What this entails is that unlike earlier, it is far more difficult to establish culpability or determine accountability today when it comes to corruption.

Prabhat Patnaik points out that unlike the scams of the yester-decades, corruption today has become far more sophisticated as a process which also requires certain financial networks and knowledge of leverage as the 2G, 4G or the Coalgate scams show, which are products of elite capture of public policy-making in a neoliberal age. He suggests that neo-liberalism has created new and alternate ethical and political regimes. The entire discussion of the spreading capitalist values, the passion for money-making, the intrusion of commoditization into every sphere of life, all of which are integrally linked to our current economic trajectory, has receded into the background, and in its place all kinds of facile quick-fix solutions are being sought to be rammed down the throat of the nation by a range of godmen, economic gurus, and the bulk of the political class that opportunistically acquiesces to a policy regime and practice that acts to the detriment of democracy and the poor (Prabhat Patnaik, 2011).

Prabhat Patnaik goes on to suggest that corruption plays a very important and specific role in the institutionalisation of a neo-liberal regime. It is not just something that a neo-liberal regime increases the scope for, because of its pervasive transfer of assets at throwaway prices to big capitalists; nor is it merely the outcome of the large-scale avarice that such a regime unleashes in general. These factors of course are conducive to a massive increase in the scale of 'corruption', such as what we observe in India today. But over and above these, there is a structural reason for the increase in 'corruption', especially among bourgeois politicians, under such a regime; and that is to enlist their political support for this regime. 'Corruption' is politically necessary for neo-liberalism (Prabhat Patnaik, 2012).

* * *

Many believe that the retreat of the Indian state away from the principle of primary public

responsibility for health, education and social protection of its disadvantaged populations, and from redistributive taxation since the 1990s, was part of the package of economic reforms driven by the 'Washington Consensus' of the World Bank and the International Monetary Fund (IMF). But even these institutions have begun to acknowledge that they may have been drastically wrong. In 2014, the president of the World Bank, Jim Yong Kim, admitted that the assumption that people in poor countries should pay for healthcare was wrong; 'There's now just overwhelming evidence that those user fees actually worsened health outcomes. So did the bank get it wrong before? Yeah. I think the bank was ideological' (Lawson 2014). In any honest assessment of economic reforms in India, it is imperative that we admit that the movement away from public provisioned health and education has been a mistake that has resulted in enormous avoidable human suffering and loss for millions of our people. But there is little evidence of such soul-searching.

In a similar self-critical tone, Christine Lagarde, managing director of the IMF has said, 'In far too many countries the benefits of growth are being enjoyed by far too few people. This is not a recipe for stability and sustainability.' She went on:

Let me be frank: in the past, economists have underestimated the importance of inequality. They have focused on economic growth, on the size of the pie rather than its distribution. Today, we are more keenly aware of the damage done by inequality. Put simply, a severely skewed income distribution harms the pace and sustainability of growth over the longer term. It leads to an economy of exclusion, and a wasteland of discarded potential (*Scroll*, 2016).

She compares rising inequality in the US and India.

In the US, inequality is back to where it was before the Great Depression, and the richest 1 per cent

captured 95 per cent of all income gains since 2009, while the bottom 90 per cent got poorer. In India, the net worth of the billionaire community increased twelvefold in 15 years, enough to eliminate absolute poverty in this country twice over (*Scroll*, 2016).

She argues that distribution of wealth matters, and contrary to prevailing economic orthodoxy until now, redistribution policies are not counterproductive for growth, 'because if you increase the income share of the poorest, it has a multiplying effect on growth...but this does not happen if you do so with the richest' (*Ibid.*).

A fair and sober assessment of the impact of 25 years of economic reforms in India therefore requires on the one hand an acknowledgment of its contribution to unleash the potential of the economy for growth and the creation of wealth. But at the same time, it is both callous and disingenuous to ignore the evidence that growth by itself is no guarantee of a better life for people of social and economic disadvantage, which surely should be both its primary objective and the paramount yardstick for evaluation of its success.

What is staring us in the face is the crisis of neo-liberal capitalism and its greatest betrayal: its spectacular failure to create decent work. We were told that if a policy regime is created in which big business invests more and makes massive profits, and the State withdraws from provisioning public goods like education, health-care, water, sanitation and housing, impoverished and deprived people would still be better off because they would have more well-paid jobs. They would then not have to depend on a corrupt, inefficient and slothful State, and instead would be able to buy the best and most competitive public goods from the market. However, the core of this argument has collapsed because huge private profits are being made, the public sector in health and education has shrunk and caved in, but job-creation is almost at a

standstill. Without decent work and earnings, all that neo-liberalism is doing for the poor is to widen the gaps between them and better-off people, while excluding them even more decisively from public goods that are essential for a human life of dignity.

Twenty-five years ago, when Dr Manmohan Singh spoke to the nation of an idea of which he was convinced the time had come, he called for freeing ourselves from one set of orthodoxies. But his prescriptions have had mixed results, many of its promises are unrealized, and millions still live wretched lives of avoidable suffering with oppression and want. In the long dark shadows of the glitter of economic reforms lie the unequal distribution of wealth, crony capitalism, low public investments in health, education, social protection and infrastructure, and the continuing neglect of small-farm agriculture. These continue to shackle millions into hunger, want, low-end uncertain employment, distress footloose migration, damaged health and denial of education that destroy the full potential of many millions of young people, still trapped in doctoral scholar Rohith Vemula's haunting description of 'fatal accident' of their births.

The radical prescriptions of 1991 have become the powerful new orthodoxies of today, canons which have conquered not just India but most of the world.

There is an implicit and sometimes explicit assertion in some circles that anyone who questions the push towards urbanisation, privatisation and neo-liberalism in general, which Chidambaram's model of development rests on, 'lacks perspective' or is stuck in an outdated mindset that romantics (*sic*) 'tradition' and resents 'progress' and the private sector (Todhunter, 2013).

But new voices in many parts of the world, such as of Bernie Sanders in the United States, are speaking out against these orthodoxies. Today in

India we need to summon even greater courage than we did 25 years ago to liberate ourselves from these new dogmas. Only then will we muster the political and moral will to change course once again, to recognize that all people deserve decent work, health care, education and social protection; that markets cannot assure them these; and that wealth is not development unless it is shared.

But to change course, more than courage we need compassion.

II

Examining Public Goods and Equity: Overview of IXR 2016

As with earlier Exclusion Reports in this series, we take a particular understanding of the idea of 'public goods', which we define as 'goods, services, attainments, capabilities, functionings and freedoms—individual and collective—that are essential for a human being to live with human dignity' (Mander, 2015). These reports specifically focus on the exclusions from public goods and the role of the State. This is not because we do not recognize that groups of people may be denied access to various public goods, because of social and market exclusions, such as gender and caste in the first case, and simply not having the money to buy public goods from the market in the second. But our focus is on the role of the State, because we believe it is the duty of the State in a democracy to ensure equitable and universal access of all persons to all public goods. We are mindful that in practice the state may not just prevent or correct social and market exclusions, but may perpetuate exclusions, or may itself exclude, or as Barbara Harriss White points out in the context of destitute people, it may even actively expel populations through the design and implementation of its laws and policies (White, 2005, 881–91).

Each Exclusion Report is designed to examine

in depth four public goods from the perspective of exclusion. We select the first of these four public goods from what may be broadly designated the social sector. The public good that is examined for this report is pensions for older people. The second public good must be from the general area of infrastructure. This report chose to look at digital access as a public good. This selection was made before the tsunami of demonetization was imagined by us, or unleashed literally overnight by the central government in November 2016. But these events, months before the report went to the press, gives this chapter an unexpected urgency and topicality. The third public good in each Exclusion Report is selected from the cluster of land, labour and natural resources. This report chooses to look at agricultural land as a public good. And the fourth public good must be from the broad area of legal justice. This report looks at legal justice as a public good for those in conflict with the law.

Why are these public goods?

The first part of each of these chapters argues why these are public goods. The pensions chapter defines the public good as the unconditional and regular transfer of cash from the state to older individuals in recognition of the entitlement of living with dignity for those in advanced stages of life. It argues that such a pension system should cover all who face the possibility of spending their advanced years without any kind of regular income, without the condition of any contribution from their side. It builds its argument for pensions to be recognised as a public good by relying on Amartya Sen's (1992) universal idea of capabilities which rests on the freedom to achieve well-being of oneself. It argues that considering the constraints of the economic system and the physical impacts of advancing age, income security can be a fundamental way to ensure the 'capabilities' required for a dignified life for oneself.

The chapter underlines that contrary to common ageist stereotypes, older people often make valuable contributions, economically, socially, culturally and to the care economy. These contributions should be recognized, respected, and where work is for wages, justly and lawfully remunerated. But at the same time, it recognizes that in later stages of life, some decline in physical and intellectual capacities may occur, and given a choice, some older persons may prefer to rest or reduce their work. Older persons will also have increased economic needs because of health-care expense, reduced mobility and sometimes the needs for home-based care. Pensions therefore should be recognized as a core and inalienable right of older persons, to make a genuinely free choice about whether or not they wish to work, and if they do not, to ensure they have sufficient funds to lead a healthy life with dignity and autonomy.

The chapter examines both moral and economic arguments for pensions as a public good. It refers to an oft-repeated moral claim that the well-being of the older generation is a responsibility of the younger generations. Central to this argument are ideas of debt, gratitude and care between the generations. Another argument views pensions as rightful wages that the employees defer during the period of their employment. The chapter also views pensions through the lens of equality, and suggests that pensions be framed as a recognition of the contribution people make all through their lives which is reflected in the aggregate income generated by the country. This formulation is mindful of the nature of work engagement, that of unregulated or unpaid labour within and outside the home, as experienced by women, casual workers, migrants and older adults in economies dominated by informal work.

At the time that the chapter was conceptualized and written, the case for the digital medium to be recognized as a public good was less obvious than that for many of the other public goods that the series of Exclusion Reports have examined so

far, such as education, health care, housing and decent work. But after the year-end ultra-shock therapy of demonetization and the consequent coercion to enter the cashless world of economic transactions, far fewer people would argue against universal and equitable access to the digital medium being a public good. However, the chapter underlines that the digital medium acts as a possible vehicle to other public goods; it is not the end in itself but acts as the means to desired ends. It argues accordingly that the digital medium facilitates access to many other valued public goods, such as information, knowledge and ideas; communication, participation, association; and the non-tangible freedom of anonymity. As a powerful example of the last, it describes highly stigmatized persons living with HIV who have been abandoned by their families, but find self-expression and worth and become gainfully employed, all without being judged, with the anonymity of the internet. A unique feature of ICTs, the authors point out, is the power that it gives the common person, without any prejudice of caste, gender, creed, age or physical nature. It speaks of students who are unable to maximize the benefits of higher education due to lack of access to the internet, daily wagers who lose their day earnings just to get their identity card printed, and the ways this facilitates both transparency and access for a range of rights such as to pension, daily wage, food, basic health facilities and education.

The chapter on agricultural land addresses the systematic starvation of public resources for agriculture in neo-liberal India, nurtured by the idea that the massive transfer of people out of agriculture is both a marker and a mandatory ingredient of 'development', results in growing exclusions from agriculture. In a society where access to land has been historically shaped by caste-based exclusions and disappropriation under the colonial experience, the present neo-liberal model only exacerbates such exclusions. Those expelled from agriculture end up

in the informal labour pool, where they continue to face a range of harsh exclusions. Unsurprisingly the informal labour reservoirs in India are mostly comprised of those who are most socially and historically marginalized—the indigenous peoples or Adivasis, Dalits, landless people, migrant workers, refugees and so on. Women also constitute an important segment of this pool. The authors interrogate this continued process of exclusion by the state of agriculture as well as the tenability and desirability of creating ever-growing armies of desperate wage labour reserves. They argue that the resolution of the deepening outcomes of exclusion and deprivation, and the resolution of the agrarian crisis in India in favour of the populations who have faced multiple denials, requires a return to the recognition of the centrality of the land question in rural India, and of equitable access to land as an essential public good.

The fourth chapter makes a powerful case for legal justice contextualising the predicament of jailed 'under-trial' prisoners. It argues for the following elements to be necessary for any accused person in a just penal system: the presumption of innocence, rights upon arrest and bail, right to counsel, and fair trial guarantees including protection from undue delays. It calls for finding the just balance between the need for public order, and the need for individual liberty (A. Chandra and M. Satish, 2016). It quotes powerfully a lament of the Supreme Court 36 years ago that

[i]t is high time that...the Government [and] the judiciary begin to realise that in the dark cells of our prisons there are large numbers of men and women who are waiting patiently, impatiently perhaps, but in vain, for justice—a commodity which is tragically beyond their reach and grasp. Law has become for them an instrument of injustice and they are helpless and despairing victims of the callousness of the legal and judicial system.⁵

The chapter underlines the irony that the words quoted above could have been written today.

It articulates that ‘justice’ was a commodity or public good that the hapless under trial prisoner was being deprived of. The authors underline that inadequate access to this public good implies not just a difficulty in accessing other positive externalities and public goods such as education, health, livelihood and legal aid, but also severely impedes human dignity, and gives rise to stigma within communities and beyond.

Who is Excluded from these Public Goods?

The headline of this and indeed every Exclusion Report so far has been that the evidence is consistent that for virtually every public good that we examine, it is always the same sets of peoples who are excluded. These are the historically oppressed groups of women, Dalits, Adivasis, Muslims, persons with disabilities and casual informal workers and the poor. This report only confirms further these findings, and illuminates the multiple ways in which even the democratic state in the Indian republic has failed these oppressed peoples and not assured them equitable access to the public goods essential for them to lead lives of dignity.

The Exclusion Report presents estimates that in India at present a little over one-third⁶ of older persons (above 60 years) receive some form of pensions. It points out that less than 15 per cent of the labour force has formal and consistent employee-employer arrangements that entitle them to any kind of social security, old age pensions in particular (NSS 68th round 2012). In light of this fact, it argues, the Indian State’s reliance on a narrowly-targeted, means-tested scheme on the one hand and an individual contribution-based scheme on the other to ensure dignified living for the old, is unjust, excluding and incompatible with the prevailing socio-economic reality of widespread poverty and a mostly unorganized and unprotected workforce.

The report goes on to observe that the State-funded National Old Age Pension is restricted to

persons from those households which are officially deemed to be Below Poverty Line (or BPL). Pensions are an individual and not household entitlement, therefore household BPL measures do not account for intra-family poverty, especially of women and most of all single women. It quotes many studies (including official studies) that have established that BPL lists are non-transparent and unreliable, and tend to exclude more poor people than they include, as well as Dalits, Adivasis, women, migrant and casual workers.

The exclusions are even more profound for the Atal Pension Yojna which is a contributory scheme requiring regular payments for a minimum of 20 years to a maximum of 40 years. Subscription to this scheme would entail multiple capabilities — access, control over excess income, and regularity of income that enable an individual to make timely payments on quarterly, half yearly or yearly basis. At the present average salary rate for a vast majority of people, payment for a financial product can only be managed by reducing necessary (and already highly insufficient) costs on essentials such as food, housing and transportation. Combined with low wages and poverty, the challenge of informality of labour relations makes mandatory, regular payments for privately procured social security schemes even more difficult. The conceptualization of this scheme as a public good is in itself profoundly flawed. More than half the rural households are engaged in manual casual labour as their primary employment. A hallmark feature of employment in the unorganized sector is that of irregularity of jobs as well as income. And women are excluded the most from decently paid wage work, as well as the agency to decide how to use money in the formal economy as required by contributory schemes. Very far from the union government’s ultimately disingenuous claims that the Atal Pension Yojna aims at reaching all those who form part of the ‘unpensioned society’, the scheme is in fact largely blind to the pension needs as well as limitations that

women who constitute nearly half the population and most informal workers face.

The report defines ‘digital exclusion’ as denial or inequality with regard to personal access to ICTs; the skills to use the devices of one’s own without having any assistance; and the ability to leverage the benefits of ICTs. It identifies poverty as a major barrier to internet access, meaning that the income poor are the first large group who are digitally excluded. One study (Ericsson Consumer Lab, 2015) estimates that even with the low and competitive prices of devices and data plans compared with the rest of the world, internet access in India remains beyond the reach of close to 1.063 billion people as the lower income group does not have discretionary money⁷ to spend on cyber cafes or to get internet connectivity on their own to access digital information. This is a sobering estimate, because it suggests that a large majority of Indian people are digitally excluded. The second barrier to people’s access to and use of the internet is geographic location, with people residing in more prosperous and urbanized regions having higher internet penetration rates than poorer regions. The third set of people excluded from the digital medium are people lacking or low in educational and digital literacy. People in many disadvantaged groups are often precluded from making use of ICTs because of low levels of computing and technology skills and more importantly, literacy skills. The report also highlights the gender digital divide as one of the most significant inequalities amplified by the digital revolution⁸ as also the exclusion of PWDs and older people in accessing services or the challenges they face in accessing them.

Coming to the third public good of agricultural land, the report quotes official as well as scholarly research to demonstrate that the pattern of land distribution in India closely reflects the existing socio-economic hierarchy. While large landowners invariably belong to the upper castes, cultivators belong to the middle castes, and agricultural

workers are largely Dalits and Tribals (Ministry of Rural Development, 2013). The report also confirms that the other most commonly exercised exclusion, apart from social group, is on the basis of sex. As a result of the failure of the rural economy to provide opportunities for decent work, male members of households are migrating away from agriculture which eventually burdens the women in the family with all/most of the agricultural labour; yet neither do they have any role in the decision making related to agricultural work nor do they have any right to the land. They are expected to work as labourers in the fields of their own families (Kodoth, 2004, 1911–1920). The report also observes that the Muslim community in India has lagged behind the most among all other socio-religious communities in land rights. It further presents hard-to-find data to demonstrate the enormous exclusion of people with disabilities in agriculture and land holdings.

The report collates and marshals strong evidence suggesting the systematic bias of the criminal justice system against SCs, STs, Muslims, people denied formal education, and the poor. The National Crime Records Bureau 2015, indicates that almost two-thirds, i.e., 65.56 per cent of all undertrials prisoners (UTPs) are from SC, ST or OBC communities and 30.24 per cent are from (religious) minority communities.⁹ Muslims constitute 20.94 per cent of UTPs, thereby over-represented by almost seven percentage points.¹⁰ 28.55 per cent of UTPs are illiterate,¹¹ suggesting indirectly a high association with poverty. These figures indicate that a large proportion of UTPs consists of individuals who face different kinds of socio-economic and political disadvantages which may affect their ability to seek legal justice once in conflict with the law.

The report shows that it is most commonly the poor—daily wage earners and migrants, women, youth, Adivasis, Dalits, Muslims, the elderly, children, transgendered people, and the mentally ill who are excluded from access to legal justice. In a CES study (with the National Human Rights

Commission) of UTP jails in Uttar Pradesh, poverty and illiteracy were found to have a strong bearing on perceptions of criminality among the police personnel. Personnel in every district consistently displayed discriminatory attitudes towards Muslims, attributing their participation in crime to inherent 'criminal traits' such as 'aggression'. The UP Police Manual, like police manuals of other states, continues to contain instructions for profiling of former Criminal Tribes. The report also details results of the CES study to demonstrate that the likelihood of getting out on bail is reduced, sometimes significantly, for members of these demographic categories. It also found that young people from these deprived groups are more likely to secure release through plea bargaining (thereby being convicted) than by getting access to bail. This enables their entry into police records as 'history-sheeters', trapping them for the rest of their lives in the criminal justice system.

Processes of Exclusion

All the chapters find, as in earlier reports, that these exclusions occur because of equity-related flaws in the design, or else in the implementation, of relevant law and policy.

The report evaluates whether pensions are inclusive and just, employing four criteria—coverage, adequacy, age of initiation and transparency and ease of disbursement of pension. No constitutional or legal obligation exists for the government to ensure pensions for older people. The National Social Assistance Programme (NSAP), the key programme through which pensions are disbursed, is a government initiative and not a statutory scheme governed by any legislation. This is different from several public goods, like school education, food, rural employment and forest rights, which are now legal rights, even if qualified and conditional. It is striking that some laws make the responsibility for care of older people vest

within the unit of the family alone even when the household is poor, while there is no legal obligation on the State to provide an alternative. Central contributions to pensions were fixed in 1995 at INR 75 (at that time equivalent to about 1.5\$US) *for a month*. In 2005 it was revised to INR 200 (less than three US\$) and since then it has not been revised. The outlays on pensions account for close to 0.05 per cent of GDP. Design flaws are even more glaring with the Atal Pension Yojna. Although officially touted as a social protection scheme, and marketed under the National Pension Scheme by the State, it is by design just another financial product developed for maximizing private profit rather than the public good. The underlying premise is that by implication it makes individuals responsible for protecting themselves against old age poverty and unfair conditions of work, and simultaneously absolves the State from its responsibility to address old age income insurance.

For digital inclusion, the report notes that India refused to be a signatory to a non-binding resolution titled 'The promotion, protection and enjoyment of human rights on the internet' at the 32nd session of the United Nations Human Rights Council. The government's reluctance to signing a non-binding resolution to incorporate a rights-based approach to ensuring this access spoke volumes.

The dismal results of the Common Service Centre which was conceptualized as 'front end service delivery outlets enabling smooth and transparent governance at the village level' notes both under-funding and biases in implementation as shown in the report. Only 10 states were able to establish these on time. The bottlenecks on the ground were the poor IT infrastructure; lack of adequate institutional frameworks and governance mechanisms; failures of state government to allot land; particularly in the northeastern states as well as states like Jharkhand and Chhattisgarh the uneven and rough geographical terrain acted as a barrier; poor connectivity; reliance on village-level

entrepreneurs with the right skill sets who may not be available because of factors like low literacy; and lack of cooperation from government officials, especially at lower levels. These problems riddle other initiatives as well, such as the high-profile Digital India programme of the union government led by Narendra Modi, which aimed to provide broadband connectivity through optical fibre to 2,50,000 Gram Panchayats in an effort to provide last mile connectivity as critical infrastructure. There have been delays in the roll-out. More significantly, 100,200 panchayats were targeted under Phase 1 which was scheduled to be completed in March 2014. As of April 2016, only 48,199 panchayats were covered. But only 6727 panchayats have internet access, only 13 per cent of the connected panchayats or 6 per cent of the total scheduled for Phase 1. This is an important reality-check that must be heeded by policy-makers who dream of a cashless India despite failures of the government to ensure connectivity to the mass of the rural populace. The key mediators of the traditional exclusionary process described earlier created what the writers call 'double-trouble' for the groups disadvantaged by gender, caste, religious identity, class and disability, whose digital exclusion leads to financial exclusion, which in the new thrust to a cashless economy are further disadvantaged in their livelihoods and access to a range of public goods.

The continued exclusion of vulnerable populations from land is explained in the report as largely the consequence of the failure of land reforms in the absence of political commitment. The percentage of land redistributed was limited and the small amounts of land which were redistributed remained mostly promises on paper with no real efforts towards implementation. Cultivable wastelands are often actually cultivated by large, upper-caste landowners, and the proposed allotments to scheduled caste and scheduled tribe landless households also often remain on paper, as these allottees are forcefully evicted or at times

not even allowed to take possession. Though the national guidelines are that 50 per cent of the land to be distributed through land reform measures should be to scheduled caste and scheduled tribe beneficiaries, the distribution pattern in many states reveals a bias in favour of non-scheduled groups. And the very idea of women as owners of agricultural land or indeed of women as farmers was outside the imagination, let alone the implementation, of land reforms.

Tenancy laws have also mostly failed tenants in general, but more specifically they have failed these historically disadvantaged groups. Tenancy in India is mostly hidden and informal. Only 9 per cent of farmers are recorded to be tenants as per the NSSO data. In reality, this figure could be three times or more. The landless and the marginal farmers constitute the bulk of those leasing in land. The Scheduled Castes have a slightly larger share in tenancy, but the average land holding of these leased in lands is hardly 0.28 hectares. Around 53 per cent of SC households lease in land on the most adverse terms on the basis of share in produce, which is a result of their feeble bargaining power.

The report points to many aspects of the opaque and formalistic structures and institutions within the criminal justice system function, that result in a situation in which people of socio-economic-cultural-political disadvantage find it much harder to access justice. It describes the unjust practice of plea bargaining in the name of judicial reform.

It also elaborates many aspects of institutional bias. For instance, many policepersons interviewed in the CES study admitted to charging individuals falsely under The Arms Act (1959), the NDPS Act (1985), the Public Gambling Act (1867), the UP Prevention of Cow Slaughter Act (1955) and the UP Excise Act (1910), all for the larger 'good' to 'control' crime across the five districts of UP. In other words, men they regard to be criminal or inclined to crime are charged falsely with the possession of unlawful

materials—unlicensed arms, narcotics, beef, cows, bulls or bullocks, and quantities of liquor above 1.5 litre—because the paperwork takes less time than an actual investigation (CES report, p. 42). Mental illness is found to be a reason for why families pay the police to incarcerate family members. There are also widely-held prejudiced beliefs about disadvantaged communities, most of all about Muslims.

It records the reluctance of the police to grant bail for bailable offences based on past history or 'criminal appearance', and the judiciary under-utilizes provisions for release on personal bond. There are blatant violations of rights relating to arrest, including the lack of intimation of grounds of arrest and the right to bail in the case of bailable offences. And of course, almost as a rule the denial of quality legal aid—grossly inadequate and poor quality legal aid services (delays in appointment, absence at prison, absence from courts, lack of adherence to guidelines—coupled with extractive private lawyers. The report also finds that policepersons, lawyers, jail staff, even judges, are often poorly informed about even the classification of offences as bailable or non-bailable, and court rulings and law amendments that advance the rights of the accused. Large physical distances of jails from the main town/city, coupled with poor public transport connectivity creates a further disincentive for lawyers to meet their clients at the jail, and makes it difficult for family or friends to visit the inmate.

Consequences of Exclusions

As with earlier reports, another significant finding of this report is that the exclusion of peoples from any of the public goods examined in this chapter result in their exclusion from several other public goods too in a domino effect.

In India, the average life expectancy at the age of 60 years is an additional 18 years. This means that at the official age of retirement an individual needs to

plan to provide for themselves for an additional 18 years, taking into account age-induced incapacities if any and reduced income. Rapid decline into abject poverty, consumption contraction, decline in health and quality of life are the most widespread consequences of exclusion from pensions in advanced age. Not having access to good nutrition or health services impacts their ability to participate in 'gainful employment'. On the other hand, a weak pension system offers a majority of workers no real option whether they wish to work or not. Studies also show that homes in which the old did not receive pensions recorded higher incidences of the second generation being involved in child labour. There are also macro-impacts; amplification of poverty and inequality in society, contraction of the economy are generally the expected impacts when the majority of the people in a country age without old age social security.

People on the wrong side of the digital divide lack access to information that ICTs allow others to reach with the push of a button. This limits opportunities for self-growth, empowerment, self-confidence, self-determination and deepening people's citizenship. ICTs can provide useful aids in education, including for distance education, access to expensive and otherwise inaccessible educational materials, and computer-based tutorials and simulation software for the sciences. The report mentions exclusion from potential information for education, health, employment and recreation for older people, persons with disability and others. In addition, the people who can operate computers and have access to the internet stand a better chance than those who are digitally excluded, though literate and otherwise competent, to get even a secretarial job let alone an administrative one. Women with no internet are not able to access the vast plethora of health-related services, especially related to the sensitive issues that women are not comfortable in discussing with others. The exclusion from banking transactions

becomes even more damaging in the recent context of the union government's sudden galloping drive to a cashless economy. The chapter also speaks of the imperfectly realized benefits of placing MG NREGA details online and digital wage payments. But on the other hand, placing more and more information about government programmes on the internet certainly has expanded transparency, and this enables citizens to hold public officials more accountable.

The consequences of exclusion from land ownership and agriculture in India has condemned millions into endemic and chronic poverty, seriously limiting possibilities of upward mobility for future generations belonging to such poor households. When data on exclusions in agriculture is superimposed with the data of informal workers in India, it becomes clear that exclusion from land and agriculture eventually forces peasants to seek out the life of a wage earner working either on others' lands or taking up non-agrarian pursuits, often in distant lands with no security or permanence. Twenty-five years of economic reforms has created a chronic crisis in agriculture, visible in the unending epidemic of farmer suicides. As per the National Crime Records Bureau, in the 20 years between 1995 and 2014, more than 3 lakh farmers committed suicide. Working on the land of others in the context of a crisis-ridden agrarian situation means mortgaging a future to underpaid seasonal wage work; contract bondage, unpaid work without any form of social security, or unprotected tenancy. These distressed rural migrants form a large chunk of 'informal sector' workers. The rural origin pockets in urban areas result in a number of slum settlements characterized by inadequate water and sanitation facilities, insufficient housing and increased food insecurity.

The absence of land and irrigation are the major factors pushing poor households to find jobs through short-term migration. The rate of temporary migration is highest among STs and

SCs, the landless and marginal farmers. The latter form three-quarters of distress migrants in the country. Pauperization embedded in this process of semi-proletarianization produces disastrous consequences for the families involved: hunger, undernourishment, starvation and its impact on the health and longevity of families, school drop-outs and child labour.

Unjust, repeated and prolonged incarceration lead to losses of social attainments, capabilities, and development during the time the undertrials spend in prison. Very often, these cause ruptures, and sometimes permanent breaks in employment, livelihood, education and shelter, for the family left outside as much for the individual after he or she is released. There is also a stigma in community, for spouses, parents, siblings, also for children of undertrials. The authors underline that the denial of the right to bail and legal justice very often results in perpetuating cycles of poverty and widening inequalities (between both individuals *and for entire communities*). It also reinforces marginalization based on religion, caste, ethnic identity or class in the way the system treats individuals; often in terms of dignity, a reinforcement of the oppression that exists outside the prison on the basis of caste, community, class, and religion. Particularly grave are the consequences if the sole earner is in prison, or in the case of a single parent being in prison, often women, creating the need to leave children in the care of acquaintances, sometimes in unsafe environs. It also may result in a worsening of conditions of mental illness and health more broadly.

There is also the vicious cycle of adverse legal outcomes. A person on bail is in a better position to prepare or present his or her case compared to one in custody. Accepting guilt in plea bargaining is found to create permanent unequal outcomes in the future. It is much harder to gain formal employment outside prison. It colours others'

perceptions, including institutions and individuals within the criminal justice system. You are seen to have a criminal record that is likely to haunt you. If you're charged in multiple cases, even if the first charge was completely unjust, you are still seen as a potential and repeat offender. Entire communities may be criminalized in this way.

III

Exclusion in Budgets & Planning

In a timely and reflective chapter, Subrat Das, Amar Chanchal and Jawed Alam Khan try to examine what implications the greater financial devolution to the states has had, and is likely to have, on social sector spending in the states. The considerable increase in the magnitude of untied resources transferred to states from 32 to 42 per cent every year is accompanied by significant reductions in the union government's financial assistance to states and budget outlays for many central schemes. The net increase in state resources has been modest in many states—some states have even shown a decline—but there is a higher magnitude of untied funds with the states. The authors find that for social sector programmes connected with child nutrition, school meals, drinking water and public health, there is reduced support from the union government to the states. The onus shifts therefore to the states to compensate for this reduction in terms of a higher state share.

In a close examination of the budgets of 10 states, they find a lower priority in state budget allocation for education in Assam, Bihar, Madhya Pradesh, Jharkhand, Maharashtra and Odisha in 2016–17. Allocations for health have fared a little better, except in Jharkhand and Maharashtra. Allocations for social welfare suffered in all states except Assam, Jharkhand and Madhya Pradesh; this includes allocation for women and child development, persons with disabilities and welfare

of Scheduled Castes, Scheduled Tribes, and Minorities. They caution further that the squeeze in social sector spending translates itself often in reduced investment in human resources for these sectors—numbers, job security and training—but this neglects the fact these sectors primarily depend on trained and motivated staffing.

They conclude that the ability of the poorer states to expand their fiscal space with own revenue collection is limited. Moreover, demands from sectors such as energy and other infrastructure sectors, general administration, and law and order could result in even more intense competition for social sector resources. They believe that the only way to achieve the twin goals of greater autonomy to the states and stepping up expenditure in the social sectors would be through an increase in the tax-GDP ratio in the country, which remains lower and more regressive than for most comparable countries.

IV

Profiles of Vulnerable Communities

As with other reports, the last part of the report is based on detailed ethnographies of a range of especially vulnerable and oppressed peoples. These are important to understand the actual lived experience and the processes of vulnerabilization of people who suffer multiple forms of denials and exclusions from a range of public goods. Unlike the first part of the report, the point of vantage is not the public good but sets of people who live in especially difficult circumstances. The highly marginalized and exploited people studied for this Exclusion Report are manual scavengers, urban poor people of Delhi, urban street children, and rural women, and girls with disability.

The authors of the chapter on manual scavengers affirm most importantly that any amount of effort by the government to make scavenging safer and

healthier cannot ensure a dignified life for people engaged in dehumanizing work such as cleaning human filth. Their social indignity is linked inextricably to caste, and in addition in most cases the gender into which they are born. The only way forward to improve the condition of the lives of this community would be to create a life away from this work. This barbaric system, they say, whereby a community is tasked with cleaning human excreta, has endured for centuries even in democratic India because it proves to be a cheap and convenient sanitation solution. The system dates back several thousands of years, put in place and maintained there by a Brahminical-Manuwadi oppressive social structure that persists even today. This casteist practice whereby the burden of cleaning human excreta rests on Dalits has over the years been legitimized institutionally and is today propped up by the political classes and the government as society can't be bothered to find a way of managing their own shit.

The dirtiest form of manual scavenging involves the cleaning of untreated human excreta in dry latrines by hand. This is mostly done by women. Dry latrines are usually inside the home and the owners prefer women to enter their homes to clean. The safai karmachari community is equally patriarchal and creates conditions whereby it is women who have to take up jobs that pay the least and are most looked down on. The report quotes Saroj, manual scavenger from Haryana:

Would you be alright sitting in a gutter? After relieving yourself you clean your hands with soap because they are dirty, right?! We have to carry that very same excreta. Our health is bound to be bad because our work is with filth. We menstruate more during our periods, suffer from miscarriages more, our children are often born with some deformity or disability, asthma, and other allergies causing skin lesions and itching are common side effects. We chew tobacco to counter the smells and this leads to a higher incidence of Tuberculosis. This is only to name a few....

It has often been anecdotally observed that it is very rare for a safai karmachari to reach the age whereby he or she is eligible for old age pensions. The level of education in the safai karmachari community is very low. Children of the community are often addressed and insulted by various caste names in schools both by teachers and children from other castes who are socialized in caste norms to not come into contact with scavenger children. At the primary level, they may attend schools in the mohallas exclusively for children of the community and identified as such, for instance a Valmiki school or a Vatal school. The level of education here is extremely poor. When they come out of primary school and attend schools in which children from other communities study as well, they are forced to carry their scavenger identity with them (even if they do not engage in the work themselves) and are sometimes forced to clean the toilets of the schools they study in. Shamed and humiliated, they often lose heart and drop out early.

The chapter describes the powerful resistance of the safai karmachari community against the practice of manual scavenging, through direct action like symbolically burning baskets and demolishing dry toilets and public pledges to give up this profession; documentation of thousands of cases of manual scavengers to prove that the government's reports that the practice has ended are proved false; and a long and powerful litigation in the Supreme Court. It also traces the efforts for a stronger legal regime to end manual scavenging. In recent years, the movement has added a strong focus on the problems of sewer workers. These are also men from the same safai karmachari community, who are forced to enter sewers, directly immersing themselves in human excreta and risking their lives.

The chapter on the urban poor people in Delhi attempts to depict the extreme heterogeneity of this population, using the framework offered by the Hashim Committee constituted by the Planning Commission. This suggested an analytical

framework for the understanding of urban poverty against a threefold axis reflecting three main categories of vulnerabilities that this population faces: residential, occupational and social.

In the residentially vulnerable frame, the chapter looks carefully at the situation of homeless persons, slum residents and those who live in slum resettlement colonies. It speaks of high homeless deaths, the extremely uncertain and low-end work, and the paradoxically high costs of surviving on the streets because even the most mundane needs have to be bought or hired in the market, from food, toilet and bathing, to even hiring a blanket for winter nights on pavements. It also reflects on the chronic character of homelessness: a man who has been 40 years without a home, says: 'When I came I used to sleep on the footpath for years. You can get some work in Delhi on the roads, and get some food too. But you will not find a place to sleep.'

The section on slum residents focuses on sprawling settlements of habitations that are unfit for human survival built on public land and officially treated merely as illegal 'encroachments' that have to be 'cleared'. This official approach neglects the fact that slums are a result of the failures of public policy to create affordable houses, self-owned or rental, for the massive informal working and migrant populations, and this predicament is aggravated further by frequent demolitions without humanely planned resettlement. It describes in particular, the plight of one such settlement which reports more than five demolitions in 35 years, although there are people with official records that date back 35 years. The most recent was one year before the field study, and the CES researchers found that people were still forced to live under plastic sheets and torn clothes and old saris crafted into makeshift homes, with a few temporary mobile dry toilets and a tanker of water that comes twice a day where the residents collect and store water for daily use. The section also looks at resettlement colonies, in which demolished slum residents are settled,

many kilometres away from the city, often on plots with no public services. It finds that most people resettled here were so far from the city that they lost their livelihood, or school admissions were also interrupted and life almost started afresh. Second, women found it very difficult to get jobs in the area. Few women worked as domestic help in nearby households, but most women did not have a secure source of income any more. The authors also point to festering open drains, the increasing epidemic at the time of research of chikungunya and dengue in almost every household, and enhanced concerns regarding women's safety.

Among Delhi's occupationally vulnerable populations, the chapter profiles street vendors, forced to pay bribes despite progressive changes in the law that have still not touched their lives. The government, the vendors said, made it difficult for those who were trying to earn an honest living. Bribes pushed them further into debt, and the market was particularly hostile to women. A second group that is described is waste-pickers or rag-pickers, whose work includes collecting waste, sorting and segregating it and trading in it. Waste-pickers are classified into four groups: those who carry sacks and collect anything of resale value from open drains, municipal bins, dumping grounds, etc.; who pick, sort and carry in sacks on bicycles items like glass, bottles, and plastics; those who ply tricycles and collect almost 50kg of waste each day and travel long distances to sell them; and those who work for waste dealers collecting and sorting waste for them. Because of the exposure to toxin, waste and working since a young age without protective gear, waste-pickers suffer from cuts, respiratory diseases, tuberculosis and infections. The children of rag pickers often are in the same occupation and denied education. The third group is construction workers. They are recruited on casual and often daily basis either directly by a builder or construction company, but mostly by intermediaries who take a commission on the payment being made. Their

employment is characterized by prolonged work hours with inadequate rest periods, hazardous working conditions, unstable employment and earnings and shifting of workplaces and poor healthcare access. They are typically migrant labour with poor rights, no organization and therefore little say about work conditions. The women are often not paid minimum wages and their children deprived of elementary facilities like health, water, sanitary facilities, education and ration cards.

The chapter goes on to describe the special problems of socially vulnerable groups among the urban poor—persons with disability (PWDs), single women and Muslims. It describes, for instance, Viklang Basti (literally Colony of the Disabled) near the Jawaharlal Nehru Stadium, with 450 households and 1000 people, in which most adults are disabled living a life by alms-seeking, and only around 10 per cent of households have ration cards. It also touches upon Muslims living in under-served ghettos, with difficulties in hiring homes in mixed settlements, and discrimination in schooling and employment.

The third vulnerable group profiled in this Exclusion Report is street children, India being home to the world's largest population of street children. The authors describe how this population of some of the country's most vulnerable children, although physically so visible, are rendered invisible to society and the State, and excluded from access to public goods, such as safety and protection, food and nutrition, health, public space and education. It highlights their deprivations and denials, the violence and exploitation they face, and their daily struggles merely to survive. Because of extreme poverty, substance abuse or irresponsible parentage, the children are left largely to their own devices.

The report highlights that the prevailing polarities in the public discourse are ones of restoration or detention. While the former presumes that the child can only be helped by placing them back in the family, the latter presumes that the best

reaction would be to detain or lock him or her up in everybody's best interest. Both perceptions operate either on the assumption that it is not really the state's responsibility or that there are no real solutions and the best one can do is a temporary Band-Aid approach of 'managing them (read taming them) here and now'. The report on the contrary foregrounds the non-custodial, residential, long-term care approach wherein there is a rich mix of educational, life-skills, recreational and health activities catering to the needs of every individual child in a violence-free environment. The last vulnerable group described in this report is rural women and girls with disability, based on a primary study by CES in villages in Odisha, Karnataka and Jharkhand. The study was unique because rural women and girls with disability participated in the study as researchers. The study confirmed that women and girls living with disabilities in India's rural areas face distinct and extreme forms of exclusion. Not only do they face the kinds of exclusion endemic to members of poverty-stricken rural households—access to food, water and safe housing, social security and health care, basic services and mechanisms of justice delivery—but they also have to deal with aggravated issues of access to these because of the lack of enabling infrastructure, and limitations imposed by their specific disabilities. In the words of a teacher, 'Poverty is the curse for these children.' At the same time, the gendered social exclusions that these girls and women face go far deeper. These are built into the very structure of a society where a physical 'defect' or 'abnormality' is assumed to invalidate a woman's potential to be educated, or married, while marriage remains—within hetero-normative and patriarchal frameworks—the sole route to a stable and permanent source of emotional support. The labour of sustaining a household is disproportionately the women's responsibility, and a failure to perform it is an invalidation of one's viability as a woman. Along with the shame and material consequences of this failure, disabled women also face a frequent, almost

chronic lack of dignity, companionship and sense of individual fulfilment.

What defines their unique situations then, as seen in the research, are two specific and interlocking problems: limitations to their mobility and ability to perform some kind of physical labour, and the lack of educational, professional and social opportunities accessible to these women. Limited mobility—whether enacted directly, in terms of the pain and weakness they feel, or indirectly, through their or their families' fear for their well-being and safety—renders them frequently unable to access work or education outside the home, while simultaneously, in some cases, limiting their attempts to be self-sufficient in housework and self-care. The lack of opportunities prevents them from finding dignity in alternative occupations and reduces them to their circumstantial incapacities.

The role of the family is paradoxical in their lives. It is their main, often only source of support, it may neglect or over-protect, it rarely consults with and often hides and feels shame, and the protective isolation extended by the family only adds a cocoon of silence to the pervasive sexual exploitation of those with disabilities. Marriage is considered the ubiquitous form of social security for rural women by most of our respondents across the three states. Whether or not she was able to earn their own livelihood, perform housework or self-care, and irrespective of her desire to marry, it was a life arrangement to which nearly all aspired, or wished they could aspire, and felt of lesser worth if their situation made marriage seem an unrealistic aspiration. Difficulties in cooking, cleaning, childbearing and child care, washing and fetching water, besides agricultural work if the family owns land, and manual labour if it does not, for married respondents led to guilt and lowered self-worth.

The authors note that for poor rural women in these locations, domestic work—which includes the two distinct tasks of household work and care

work—is always the 'first shift'. Care of children and the sick also take up time, and cannot be shared unless a daughter reaches adolescence. If physically fit for it, cultivation of any land owned by the family is the next priority, and only after that comes paid work. Women any way face huge barriers to equitable access to work that is fairly remunerated, safe and dignified, but for women with disabilities, these difficulties are often incrementally higher. Discrimination about capacity for work and gendered wage rates compound the difficulties many women with orthopaedic and vision disabilities face in going out to work every day. Even with more education, opportunities for employment other than manual labour are practically nil in most villages, with the exception of a few cases of employment as teachers or in NGOs.

Enrolment is denied by schools to those with severe disabilities on grounds of untrained staff, lack of appropriate infrastructure, and in some cases, even a perception of the child as 'incapable of learning'. In many cases, the decision to not send these girls to school is taken at home, by parents who prioritize their non-disabled or male children. At the same time, parents who themselves have had limited or no education are uncertain about their children's fitness for school, and about the utility of education for them in a situation of such limited work opportunities. Children who are able to attend school, mostly children with less restricting disabilities or with access to assistive devices, rarely complained about the experience. Most children reported, hearteningly, that they were treated well by teachers and students, some friends even stopping by their houses before school to help them carry their schoolbags.

Afterword

It is often pertinently asked, who is the intended audience for this series of India Exclusion Reports? The audience that we seek to reach out

to for the reports is diverse. It is of course first for policy makers, scholars and civil society activists for a just public policy. We hope that strong evidence-based analytical reports year after year on the outcomes of governance for India's most oppressed peoples, the vast and comprehensive denials, and the unjust, adverse inclusions, that they face from a wide range of public goods, and the lives of entirely preventable denial and suffering that they continue to endure, will hold up a mirror to the people who engage with public policy and law. We hope that it will persuade them that these outcomes exist, however much they tend to be made invisible in everyday life, and that these outcomes are not inevitable or normal but are the direct outcomes of public policy and law.

But these are not the only, and if we may suggest even the paramount, audiences that we seek for

these Exclusion Reports. We wish to inform and influence, and hopefully even educate, not just the State, but also larger public opinion. Therefore, the India Exclusion Reports are also intended for teaching in universities, and we are trying to prepare teaching notes to help teachers and students to use these Exclusion Reports for pedagogic purposes. We try to share our research output in other Indian languages, mainly Hindi so far, with the communities we base our study upon to learn from them and in return equip them with our methods and analysis. We are also doing versions for young people in graphic novel form which we hope to publish online, and in the future even hope for a version of each Exclusion Report for children as well. Because as I argue in *Looking Away: Inequality, Prejudice and Indifference in New India*, a just and caring State can only be located ultimately in a just and caring society.

Endnotes

1. My gratitude for strong research support and advice from my colleagues Anirban Bhattacharya and Vivek Mishra.
2. As per the FOURTH ANNUAL EMPLOYMENT & UNEMPLOYMENT SURVEY REPORT (2013–14) at the all-India level, 49.5 per cent persons are estimated to be self-employed under the Usual Principal Status Approach followed by 30.9 per cent as casual labour. Only 16.5 per cent were wage/salary earners and the rest 3.0 per cent covered contract workers. See <http://labourbureau.nic.in/Report%20%20Vol%201%20final.pdf>
3. In this section in particular, the contributions of Anirban Bhattacharya and Vivek Mishra have been particularly significant.
4. According to a report by Credit Suisse published in October 2015, the total amount of money owed to the State-owned banks alone was calculated to be INR 3.04 lakh crore. See <http://www.india.com/news/india/reliance-adani-vedanta-group-top-10-companies-with-the-largest-debt-1220822/>
5. For full copy, see judgement on Hussainara Khatoon (I) v. Union of India, (1980) 1 SCC 81, 83.
6. An estimate of over one-third is an approximate derived based on the following figures. About 23 per cent of the old are covered under the IGNOAPS. Eight per cent are covered by private sector employers. The rest are covered by public sector employers. The first figure is based on the total beneficiaries of IGNOAPS presented in Annexure 1 (2,41,67,176 people) and considering the total population of those above the age of 60 years as 10.39 crores. For the second figure see 'When India Ages; whither all Pensions' published by CRISIL Insight in January 2015. Accessed at <https://www.polymerupdate.com/general/special-features/articles/crisil/crisil-27022015-144416.pdf>. For estimates, also see *India Labour and Employment Report 2014: Workers In The Era of Globalisation*; Institute of Human Development, published by Academic Foundation, New Delhi in 2014.
7. Discretionary income is the amount of an individual's income that is left for spending, investing or saving after paying taxes and paying

for personal necessities, such as food, shelter and clothing. Discretionary income includes money spent on luxury items, vacations, and nonessential goods and services.

8. The Digital Revolution refers to the advancement of technology from analog electronic and mechanical devices to the digital technology available today. The era started during the 1980s and is ongoing. The Digital Revolution also marks the beginning of the Information Era.
9. Calculated from Govt. of India (2015) NCRB

Prison Statistics in India: 'Table 5.2 – Demographic Profile of Undertrial Prisoners at the end of 2015 (Continued)'p. 103. Religion-wise population: 69.77 (Hindu); 20.94 (Muslim); 3.87 (Sikh); 3.67 (Christian); 1.76 (Others) Caste-wise population: 21.67 (Scheduled Caste); 12.41 (Scheduled Tribe); 31.48 (Other Backward Classes); 34.43 (General).

10. Muslims constituted 14.23 per cent of the national population based on Census of India 2011 figures. <http://www.census2011.co.in/religion.php>
11. Ibid.

References

- Bakshi, Ishan. (2016). Stomach this: India ranks dismal 97 in global hunger index. *Business Standard*. 12 October. Retrieved 26 February 2017, from http://www.business-standard.com/article/current-affairs/stomach-this-india-ranks-dismal-97-in-global-hunger-index-116101100619_1.html
- Breman, Jan. (1994). *Wage Hunters and Gatherers: Search for Work in the urban and rural economy of South Gujarat*, Delhi: OUP.
- Centre for Equity Studies. (2016). *Access to Justice in Uttar Pradesh: A Pilot Study in Five Districts*.
- Chandra, A. and Satish, M. (2016). Criminal Law and the Constitution. In Choudhary, S., Khosla, M. and Mehta, P.B. (Eds.) *The Oxford Handbook of the Indian Constitution*. Oxford University Press UK.
- Chandrasekhar, C. P. (2010). Corruption in the neoliberal era. *The Hindu*. 30 November. Retrieved 26 February 2017, from <http://www.thehindu.com/opinion/columns/Chandrasekhar/Corruption-in-the-neoliberal-era/article15576490.ece>
- Dreze, Jean. (2014). On the mythology of social policy. *The Hindu*. 8 July. Retrieved 26 February 2017, from <http://www.thehindu.com/opinion/lead/on-the-mythology-of-social-policy/article6186895.ece>
- ENS Economic Bureau. (2014). Adani Group's Australia deal sealed, SBI to give him \$1-billion loan. *The Indian Express*. 18 November. Retrieved 26 February 2017, from <http://indianexpress.com/article/business/economy/adani-australia-deal-sealed-sbi-to-give-him-1-billion-loan/>
- Ghosh, Jayati. (2011) Poverty Reduction in China and India: Policy Implications of Recent Trends, in Jomo Kwame Sundaram and Anis Chowdhury (eds) *Poor Poverty: The Impoverishment of Analysis, Measurement and policies*, Bloomsbury Academics.
- GOI, Ministry of Labour & Employment Labour Bureau. (2010). *Report on Employment & Unemployment Survey 2009-10*. October. Retrieved 26 February 2017, from http://labourbureau.nic.in/Final_Report_Emp_Unemp_2009_10.pdf
- Gupta, Akhil (2012), *Red Tape: Bureaucracy, Structural Violence and Poverty in India*, London: Duke University Press.
- Harriss-White, B. (2005). Destitution and the poverty of its politics—with special reference to South Asia. *World Development*, 33(6).
- Hearse, Phil. (2016). Neoliberalism's world of corruption. *Socialist Resistance*. 7 April. Retrieved 26 February 2017, from <http://socialistresistance.org/neoliberalisms-world-of-corruption/8256>
- Himanshu. (2008). What Are These New Poverty Estimates and What Do They Imply? *Economic and Political Weekly*, 43 (43), 25–31 October, pp. 38–43.
- Hurun Research Institute. (2015). *Hurun Global Rich List 2015*. 3 February. Retrieved 26 February 2017, from <http://www.hurun.net/en/ArticleShow.aspx?nid=9607>
- Kodoth, P. (2004). Gender, Property and Responsibility for Farming in Kerala. *Economic and Political Weekly*, 39(4).
- Kompier C., Archana Prasad, Sajjad Hassan, Smita Premchander, Sudhir Katyar, Dada Sahed, Divya Verma, Neha Saigal, Ruchika Chaudhary, Sameer Taware (2014). Labour Markets: Exclusion from 'Decent Work'. *India Exclusion Report 2013-14*.
- Lawson, Max (2014). Heads of IMF and World Bank must support a global goal to end extreme inequality, *The Huffington Post*. Retrieved 26 February 2017, from http://www.huffingtonpost.co.uk/max-lawson/global-banks-fight-poverty_b_5116582.html
- Mander, Harsh. (2014). Formal industry, informal work. *Live Mint*. 26 January. Retrieved 26 February 2017, from <http://www.livemint.com/Opinion/38tuZShjftafBaQvlf5nI/Harsh-Mander--Formal-industry-informal-work.html>

- . (2015). India Exclusion Report 2015: An Overview. *India Exclusion Report 2015*.
- . (2015). *Looking Away: Inequality, Prejudice and Indifference in New India*, New Delhi: Speaking Tiger.
- . (2015). Surging tides of inequality. *The Hindu*. 11 July. Retrieved 26 February 2017, from http://www.thehindu.com/opinion/columns/Harsh_Mander/harsh-mander-on-the-rising-economic-inequality-in-india/article7407472.ece
- . (2015). Many degrees of hopelessness in India's villages. *Hindustan Times*. 30 July. Retrieved 26 February 2017, from <http://www.hindustantimes.com/columns/many-degrees-of-hopelessness-in-india-s-villages/story-YH5T9PC9fGA5EKamUm1MFL.html>
- . (2016). 25 years after liberalisation: India must realise that wealth isn't development unless it is shared. *Scroll.in*. 25 July. Retrieved 26 February 2017, from <https://scroll.in/article/812373/25-years-after-liberalisation-india-must-realise-that-wealth-isnt-development-unless-it-is-shared>
- Ministry Of Finance Department Of Economic Affairs Economic Division. (2015). Indian Public Finance Statistics 2014-2015. New Delhi. GOI. July. Retrieved 26 February 2017, from <http://finmin.nic.in/reports/IPFStat201415.pdf>
- Ministry of Rural Development. (2013) *Committee on State Agrarian Relations and Unfinished Task of Land Reforms*. New Delhi. GOI. Retrieved 26 February 2017, from http://www.rd.ap.gov.in/ikpland/mrd_committee_report_v_01_mar_09.pdf
- OECD 50. (2011). *Divided We Stand: Why Inequality Keeps Rising*. Retrieved 26 February 2017, from <https://www.oecd.org/els/soc/49170768.pdf>
- Oxfam. (2014). *Even It Up: Time To End Extreme Inequality*. Retrieved 26 February 2017, from https://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/cr-even-it-up-extreme-inequality-291014-en.pdf
- Patnaik, Prabhat. (2011). Capitalism, Corruption, and the Subversion of Democracy and Secularism. MR Online. 7 June. Retrieved 26 February 2017, from <https://mronline.org/2011/06/07/capitalism-corruption-and-the-subversion-of-democracy-and-secularism/>
- . (2012). Neo-liberalism and 'corruption'. *Progressive Interactions, Odisha Today Network*. Retrieved 26 February 2017, from <https://groups.google.com/forum/#!topic/progressive-interactions/SRun7Fywltc>
- Rai, Dipu. (2016). Banks shower loans 'wilful defaulter' Niranjan Hiranandani. *DNA*. 15 November. Retrieved 26 February 2017, from <http://www.dnaindia.com/india/report-dna-exclusive-hiranandani-co-founder-declared-wilful-defaulter-banks-still-shower-him-with-loans-2273416>
- Sharma, Aditya. (2016). Reliance, Adani, Vedanta group – Top 10 companies with the largest debt. *India*. 28 May. Retrieved 26 February 2017, from <http://www.india.com/news/india/reliance-adani-vedanta-group-top-10-companies-with-the-largest-debt-1220822/>
- Srivastava, Ravi. (2012). An overview of its features, trends and policy challenges in National Workshop on Internal Migration and Human Development in India. *Workshop Compendium Vol. II: Workshop Papers, UNESCO*. October. Retrieved February 26, 2017, from http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/New_Delhi/pdf/Migration_VOL-2__Low-res_PDF_for_view__01.pdf
- TOI. (2008). One-third of world's poor in India: Survey. *The Times of India*. 27 August. Retrieved 26 February 2017, from <http://timesofindia.indiatimes.com/india/One-third-of-worlds-poor-in-India-Survey/articleshow/3409374.cms>
- The Hindu*. (2016). India up one position in WB ease of business ranking. *The Hindu*. 25 October. Retrieved 26 February 2017, from <http://www.thehindu.com/business/Economy/India-up-one-position-in-WB-ease-of-business-ranking/article16081515.ece>
- Indian Express*. (2016). SBI writes off Rs 7,016 crore loans owed by wilful defaulters, including Vijay Mallya's defunct airlines. *The Indian Express*. 16 November. Retrieved 26 February 2017, from <http://indianexpress.com/article/business/banking-and-finance/sbi-write-off-npas-wilful-defaulters-list-vijay-mallya-kingfisher-airlines-4378210/>
- Todhunter, Colin. (2013). Mass poverty and social inequality in India: The devastating impacts of the neoliberal economic developmental model. *Global Research*. 30 October. Retrieved 26 February 2017, from <http://www.globalresearch.ca/mass-poverty-and-social-inequality-in-india-the-devastating-impacts-of-the-neoliberal-economic-development-model/5356153>
- Varma, Subodh. (2016). India ranked 97th of 118 in global hunger index. *The Times of India*. Retrieved 26 February 2017, from <http://timesofindia.indiatimes.com/india/India-ranked-97th-of-118-in-global-hunger-index/articleshow/54822103.cms>



Glimpse of an E-Mitra facility during the Jawabdehi Yatra in 2016.

Photo Credit: Jayshankar Menon, Rough Cut Productions, Delhi

Exclusion from Digital Infrastructure and Access

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1. Introduction

Information and Communication Technologies (ICTs) have many different definitions. The World Bank defines it as ‘The set of activities which facilitate by electronic means the processing, transmission and display of information’ (Rodriguez & Wilson, 2000). Economic and Social Commission for Asia and the Pacific (ESCAP) defines ICTs as ‘...refer[ring] to technologies people use to share, distribute, gather information and to communicate, through computers and computer networks’ (ESCAP, 2001). In this chapter we shall follow the one standardized by the United Nations, ‘ICTs are basically information-handling tools—a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information’ (United Nations ICT Taskforce, 2003). They include the ‘old’ ICTs—radio, television and telephone, and the ‘new’ ICTs—computers, satellite and wireless technology and the Internet. These ICT tools are invaluable to the modern information society. Their impact on the quality of life with regard to access to information and avenues to better oneself especially in developing countries is unprecedented.

1.2 Tracing the Journey of Digital Exclusion

The term ‘Digital Divide’ was prevalent in studies and policies during the 1990s and early 2000s. As access to and content in the ICTs have evolved over the years, so has the definition of the digital divide. Now it is regarded: as a) lack of infrastructure; b) lack of access; c) lack of information, and d) inability to leverage information.

There are considerable differences in the definition of the digital exclusion by various researchers. For some, the term refers to the gap between people who have access to the internet and those who don’t (Mehra, 2002); the extent of physical access to ICTs and the Internet (Loader & Keeble, 2004).

Azari and Pick (2005 & 2009) consider it the ‘uneven distribution of the benefits of ICTs’ which can be studied at both the specialized level (broadband or mobile Internet access) and basic ICT access level (availability of basic ICT devices such as phone, TV and radio).

In the mid-2000s, research on the digital divide moved beyond physical access and paid closer attention to concepts that are concerned with issues around culture, empowerment, and social mobility; and differentiated uses of the Internet (Hargittai,

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2002; de Haan, 2004; Newhagen & Bucy, 2004; van Dijk, 2006).

Against a general conception of ‘digital inclusion’ as access to computers and internet for all, regardless of physical, cognitive or financial ability, Crandall and Fisher (2009) broaden the definition to include technological literacy and the ability to access relevant online content and services. They also see it as the process of democratizing access to ICTs, in order to allow the inclusion of the marginalized in the information society.

Hache and Cullen (2009) further state that digital inclusion should be seen as a wagon to social inclusion that ensures individuals and disadvantaged groups have access to ICTs and the skills to use them and are therefore able to participate in and benefit from an increasingly electronically mediated knowledge economy and information society.

Due to the comprehensive nature of Hache and Cullen’s postulation, we will consider their definition of digital inclusion as the theoretical underpinning of this chapter.

1.3 Digital Medium as a Public Good

Dhani Poonia—a small hamlet in the Churu district of Rajasthan, India, has only one upper primary school, no hospital or *eMitraKendra*.¹ While almost every popular Internet network is available in this village, connectivity and quality of the connection is low. This forces villagers to travel to the nearby towns of Rajgarh or Taranagar, at a transportation cost of INR 50, every time they want to access the Internet facility at one of these places. Those offering digital services in these two towns charge INR 5 per printout, and INR 20 per hour for internet usage. A student who needs help to fill a form or apply online for admission has to pay a minimum of INR 70 (INR 50 for travel and INR 20 for using the internet service) (Manzar, 2016a).

For a worker availing benefits from the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)² and earning about INR 150 a day, the total cost of getting a photocopy of an Aadhaar card³ comes to INR 225 (opportunity cost of losing his day job INR 150, plus travel cost INR 50, plus Internet cost INR 20, and cost of printout INR 5).

Thus, students are unable to maximize the benefits of higher education due to lack of access to Internet. Daily wagers lose their day’s earnings just to get their identity card printed. For them, access to digital media is not a luxury but a necessity. It is important for us to highlight that the digital medium has value not in and by itself but rather acts as a medium that facilitates access to other basic public goods and services, especially in developing countries.

In India, access to public entitlement is hard to get, especially for people living in rural areas; here the poor and illiterate get misguided easily and access to basic necessities like pension, daily wage, food, basic health facilities and education is a challenge. ‘Public good’ here is defined as goods, services, attainments, capabilities, functioning and freedoms—individual and collective—that is essential for a human being to live with dignity (Mander, 2015).

The following example will elaborate the above point. MGNREGA creates a justifiable ‘right to work’ by promising up to 100 days of wage employment per year to all rural households whose adult members volunteer to do unskilled manual work. However, a recent study ‘Right to Work’ (Dutta et al., 2014) has pointed out that there is very little public awareness about what needs to be done to obtain work along with an array of other issues surrounding the MGNREGA programme. Thus, despite the law guaranteeing work and livelihood, people are left unemployed due to lack of proper channels of information. The digital medium can serve to enable access to genuine, cost-effective and

timely information thereby increasing feasibility and efficiency.

1.4 Opportunities Provided by the Digital Medium and Why It Matters?

According to van Dijk (2006), the ‘digital divide’ is the gap between those who do and do not have access to computers and the internet, i.e., have no access to the digital medium. However, what matters is not really the lack of tools like computer and the internet, but the lack of tangible and non-tangible opportunities that it provides. It also allows communication and exchange of ideas while retaining anonymity and foregoing the need for physical travel.

As Table 1 explains, tangible opportunities that the digital medium provides could be access to information, new ideas and skills.

A few examples of digital media enabling access to not just goods and services but also in many cases, access to their basic rights will serve to demonstrate the advantages of digital inclusion and elucidate the point further.

Mobile Vaani is a mobile-based application initiated in 2012 by Gram Vaani Community Media in Jharkhand and has now spread to Bihar and Madhya Pradesh (MP) as well. The application uses an interactive voice response (IVR) system, thus enabling people to create and share content. The IVR system makes it accessible over basic phones with no internet access, as the entire communication happens over a phone call. People

leave a missed call and when the server calls them back they have an option to either leave a message and/or hear a message (Rustagi, 2013). The social sector—non-governmental organizations, and development organizations—use Mobile Vaani to disseminate information about their programmes. Local business owners (small shop owners), coaching centres and self-help groups use it to advertise their services and products.

CGNetSwara, a Bhopal-based project, is a voice portal for citizen journalists to report or listen to news bytes about Chhattisgarh, using their mobile phones in Hindi and Gondi (a language spoken in the central Gondwana region of India, which comprises the central tribal region stretching from the Adivasi areas of Gujarat to West Bengal).

On 8 January 2011, a citizen journalist posted an interview with Pitbasu Bhoi from Ambikapur, who was not paid his wages even after working 100 days under MGNREGA. A week later, another citizen journalist ran into Bhoi and discovered that his son had died due to the non-payment of wages. After two leading national dailies, *Times of India* and *The Hindu*, picked up the story from Swara and followed up, Bhoi was paid his wage on 20 January, 2011 (Shah, 2012).

D B Corp, owner of the largest circulating newspaper in Chhattisgarh, acquired a coal mine in Dharamjaigarh in Chhattisgarh. Despite the rigged public hearing, local media ignored the story. However, following two reports on CGNetSwara about the public hearing, three national newspapers carried elaborate stories, leading to the cancellation

Table 1: Tangible and Non-tangible Opportunities Provided by ICT Devices

Tangible	Social: Communication, Participation, Association	Educational: Information, Ideas, Knowledge/Skill	Material: Resources, Source of Economic Capital Formation
Non-Tangible	Freedom of Anonymity		

Source: Van Dijk, J.A.G.M., 2006

of the allotment of the coal mine. (Srivastava et al., forthcoming)

Swara became a success due to the ease of telecommunication, user friendliness and round the clock availability of the application. Another major factor that aided the success of Swara was its ability to enable communication in the regional language.

Digital interventions like Mobile Vaani and CGNetSwara help break the traditional socio-economic barriers of communication as they provide both non-tangible benefits like information, knowledge and ideas while also enabling the marginalized communities to generate livelihood opportunities and enhance the existing ones.

Thus, the digital medium acts as a vehicle. It is not the end but acts as the means to an end.

2. Mediators of Digital Exclusion

According to Curtis Kularski, ‘...the digital divide is composed of a skill gap and a gap of physical access to Information Technology (IT) and the two gaps often contribute to each other in circular causation. Without access to technology, it is difficult to develop technical skill and it is obsolete to have access to technology without first having the skill to utilize it’ (2012, p.1).

ICTs have become an irreplaceable tool in society. Today, the Internet has become an integral part of many lives and it is difficult to imagine having to function without internet access. The number of people ‘going online’ to conduct everyday activities, such as business and banking, education, seeking employment, civic engagement and forming and maintaining social relationships, is increasing every day. The World Development Report noted that almost 1.063 billion Indians were offline even though India ranks among the top five nations in terms of the total number of Internet users, along with China, the US, Japan and Brazil. The report further

stated that while India has come close to the US in numbers in terms of Internet penetration it remains far behind at 18 per cent as against 87 per cent in the US. India still needs to connect these ‘offline people’ to the Internet for pushing growth, creating jobs and accessing public services (World Bank, 2016).

This section explores various factors which contribute to digital exclusion like poverty, geography, illiteracy, disability, gender and age, and throws light on the intersection of these independent variables. These variables influence the existence of various groups on a ‘continuum of exclusion’, due to the inherent intersection that is endemic to exclusion. However, there are members of these groups that may experience complete exclusion.

For the chapter, we have defined ‘complete digital exclusion’ as a social and economic inequality with regard to personal access to ICTs; the skills to use the devices of and on their own without having any assistance; and ability to leverage the benefits of ICTs. In this particular definition, we have excluded the concept of the sharing of ICT devices and Internet with the family and community members. The World Bank (2012) also highlighted the difference between mobile users and subscribers, stating that ‘if a mobile phone exists in a household, then all members could theoretically use it, thereby extending access.’ This definitional extension of access can be used to inflate metrics when assessing digital inclusion, therefore, the authors have chosen to disregard it.

2.1 Poverty

Poverty poses a major barrier to Internet access. As per the 68th round of the National Sample Survey Organization (NSSO), conducted in 2011, the percentage of persons below the Poverty Line in India has been estimated as 25.7 per cent in rural areas, 13.7 per cent in urban areas and 21.9 per cent for the country as a whole (Abhay, 2014).

The high cost of ICT devices and data plans, low incomes and affordability are the major challenges for much of the offline population. In India, the ability to purchase or rent the ICT tool for access to digital information is less among the masses. The Ericsson Consumer Lab Report (2015) stated that in India, for the consumers who do not use mobile broadband, affordability was the prime obstacle to the adoption of ICT services as 88 per cent of Indian consumers on 2G felt that mobile broadband is too expensive. Many Indians struggle to meet their basic needs and are unable to afford internet services. The report also stated that even with the low and competitive prices of devices and data plans compared with the rest of the world, internet access in India remains beyond the reach of close to 1.063 billion people as the lower income group does not have discretionary money⁴ to spend on cyber cafes or to get Internet connectivity on their own to access digital information.

The most formidable hurdle in digital inclusion is the inability of Indians to afford data plans. The State of Connectivity Report, 2015, by internet.org stated that four of five Indians could afford internet if data costs fell by 66 per cent, but Indian telecom operators already claim to run data services at an 11 per cent loss, making cost-cutting difficult. The statistics show that a data plan, currently priced at INR 100 should not cost more than INR 34, if India has to make internet affordable for 80 per cent of its population. Poverty and socio-economic constraints digitally exclude the people belonging to lower rungs of the economic ladder as they cannot afford new communication technologies and the expenses incurred in upgrading the equipment, software, and training support.

To facilitate digital inclusion among low-income groups, the total cost of ownership including devices, data plans, taxes, and related expenses (such as charging solutions) would need to be at a level that these low-income consumers can afford.

2.2 Geography

Chen and Wellman (2004) found that geographic location is one of the major factors affecting people's access to and use of the internet, with more prosperous regions having higher internet penetration rates than poorer regions.

Lack of sufficient network coverage and insufficient infrastructure are the major obstacles to internet adoption, particularly in rural areas. The Internet and Mobile Association of India (IAMAI) Internet in India Report (2015) found that India had over 317 million users accessing the Internet at least once a month. Of this, urban India accounted for 209 million users out of an overall urban population of 414 million people, while rural India accounted for 108 million users out of an overall population of 922 million people. This is approximately around 25 per cent of the country's population. One of the foremost reasons for rural areas lagging behind urban areas with regard to access to ICTs is that spectrum allocations in the lower-frequency coverage bands, under 1GHz, are inadequate in providing an economically viable network. Besides, existing operators don't generate enough revenue in rural areas and therefore, do not invest in building infrastructure. The Census of India identified 6,40,932 rural settlements and 7933 urban settlements (2011) within the country. Rural settlements are eighty times more numerous than urban settlements. Yet, according to a report by Deloitte (2015), the distribution of towers is skewed towards urban areas, with 61 per cent of towers as opposed to 39 per cent of towers in rural areas.

There are also other reasons like the lack of infrastructure coupled with harsh terrain and often-vast distances between communities, and the low income of rural communities. In addition to this, access to electricity is another hurdle in rural areas, with only 55 per cent of rural households having access to electricity (Census of India, 2011).

The above mentioned barriers are exacerbated by the lack of awareness about benefits of ICTs, in spite of access to ICTs being available. The IAMAI survey (2015) also found that 76 per cent of Indian respondents cited lack of awareness about the internet as the reason they weren't online. Beyond basic awareness, a significant number of individuals have been exposed to the internet but choose not to go online because they don't see the value in its potential uses.

Internet users in rural and urban areas have varying usage and preferences because of differences in devices, network capabilities and underlying consumer behaviour and the patterns can be expected to evolve over time as they gain more experience by browsing more sites. According to the IAMAI(2015), urban users use the Internet for online communication the most (71 per cent), followed by social networking (67 per cent), entertainment (59 per cent) and online shopping and online ticketing (at 23 per cent and 24 per cent respectively). Rural users' primary use of the Internet is for entertainment (44 per cent), social networking (33 per cent), and communication (37 per cent). Online ticketing and online shopping account for 14 per cent and 5 per cent respectively.

With the aim of providing stable and affordable connectivity in rural areas; both the government and some major corporations are attempting to resolve this issue with network sharing, National Optical Fibre Network (NOFN) project and other initiatives. With the NOFN project initiated in 2011, the government has aimed to provide broadband connectivity of a minimum of 100 Mbps to over 2,50,000 *Gram Panchayats*⁵ (local self-government organizations in India of the Panchayati Raj⁶ system at the village or small-town level) with non-discriminatory access to the network for all categories of service providers. This government initiative estimated that the rural internet users would increase from 60 million in June 2014 to 280 million in the year 2018 (Rao, 2015).

In the north-east, most of the people are digitally excluded as these states have been getting internet connectivity through Mumbai and Chennai International Internet Gateway, but the problems of weak signals and drop of linkages were faced because of long distance. To tackle the connectivity issues, an agreement had been signed between Bangladesh Submarine Cable Company Limited (BSCCL) and Bharat Sanchar Nigam Limited (BSNL) in June 2015 to provide unimpeded and high speed internet with large bandwidth. Besides, India's third International Internet Gateway (IIG) after Mumbai and Chennai is being installed at Agartala through Cox Bazar Cable Landing Station of Bangladesh for the north-eastern regions of India—Assam, Meghalaya, Mizoram, Tripura, Manipur, Nagaland and Arunachal Pradesh (Indo-Asian News Service, 2016).

Google has also taken the initiative to bring affordable internet access to rural India with project 'Loon', the infrastructure for which would be big balloons floating at a height of 20 kilometres above the Earth's surface for the transmission of internet services. They have also partnered with telecom companies to share the cellular spectrum enabling people to access internet from their phones and LTE (Long-Term Evolution, commonly marketed as 4G LTE) enabled devices. Though this project is under development, it is expected that its implementation will result in greater access to internet services and reduce digital exclusion (Press Trust of India, 2015).

Thus, there are different initiatives and projects to provide the network backbone for connecting villages, yet grassroots connectivity remains a challenge because of poor implementation and lack of monitoring.

Insufficient infrastructure and network coverage, combined with digital illiteracy and absence of discretionary money contribute to complete digital exclusion of most of the villages. Consider the case of the *Agariya* community, which is a De-notified

Box 1: Including the Agariyas

In this era of real-time communication where mobile phones in many ways define the human experience, there's still a place in our country where people communicate with each other by way of reflecting mirrors. In the Little Rann of Kutch in Gujarat, mirrors are one way to reach out to each other.

The 4,953 sq. km Little Rann, home to about 3,500 families belonging to the Agariya (salt worker) community, is known as India's 'Survey Number Zero' because no land survey has been conducted here since the British left. Several attempts have been made by activists working in the region to get government officials to come and see the living conditions here. Yet, majority of the Agariyas continue to live a life of virtual non-identity and is [sic] mostly paid poorly by middlemen for their labour. The Agariya community is a denotified tribe scheduled [sic] that has been farming salt for centuries.

This peculiar lifestyle means that their children hardly ever get a chance to go to school. When I visited the Little Rann, I got a chance to see about 17 schools made of rugs and sacks around the area of about 10-20 km from Patadi block headquarters of Surendra Nagar district (Manzar, 2016 b).

Scheduled Tribe⁷ that has been farming salt for centuries.

The Agariyas are being socially and digitally excluded as they don't have access to better opportunities in terms of education and employment; and don't have access to ICTs (Box 1).

2.3 Illiteracy

Literacy is a prerequisite for being able to participate fully in society—including the act of getting online. A low literacy rate is a major impediment to increasing internet penetration, while digital literacy and skills are important in allowing access to digital information. Literacy, according to the Census of India, 2011, is the ability to read and write with understanding in any language. A person who can merely read but cannot write is not classified as literate. As per the Census (2011), literacy rate in India is 74.04 per cent with a 14 per cent increase from 2001. However, there isn't enough statistical data with regard to the level of digital literacy (the ability to effectively and critically navigate, evaluate, and create information using a range of digital

devices and technologies) possessed by people.

Generally, online content and information are designed for an audience that reads at an average or advanced literacy level and has discretionary money to spend. Non-users often lack the digital skills to be able to access mobile internet and discover what is available. This can be compounded by a lack of motivation due to the perception of limited relevant content. People in many disadvantaged groups are often precluded from making use of ICTs because of low levels of computing and technology skills. This is a significant factor in completely excluding certain people from using the internet technologies (Salinas, 2003). Lack of digital literacy is combined with a lack of motivation where people don't associate the benefits of the internet and other digital devices with their personal needs, believing that 'computers are not for them'. As a result, they behave very passively towards the ICTs and become completely digitally excluded.

To close the digital divide, a National Digital Literacy Mission (NDLM) has been initiated by the government with the vision to empower at

least one person per household with digital literacy skills by 2020, and help users to harness the power of technology and develop necessary skills to start using ICTs with confidence.

Another reason for digital exclusion is the language in which content is available on the internet. India is a culturally, religiously and linguistically diverse society. At least 80 per cent of all content on the internet is in one of 10 languages: English, Chinese, Spanish, Japanese, Portuguese, German, Arabic, French, Russian, or Korean (World Bank, 2014). Language fragmentation within India compounds the challenge as it has 22 official languages in 11 scripts and hundreds of unofficial languages. Despite the large number of individuals who speak the country's major languages, none of these languages appear among the top 10 languages on the internet. Lack of relevant (localized) internet content is a hurdle for the people whose primary language is not English and prevents people from familiarizing themselves with benefits of internet-based information.

The number of Wikipedia articles in Indian languages fall woefully short of the top 10 languages on the same platform. To put the sheer scale into perspective, the number of Wikipedia articles in English stand at 5.308 million versus 1,14,399 articles in Hindi; 1,10,856 in Urdu; 89,578 articles in Tamil; and 46,815 in Malayalam (Wikipedia Foundation, 2016).

An IAMAI report (2016) on 'The Proliferation of Indian Languages on the Internet' stated that the increase in online local language content would lead to an increase of 39 per cent in the number of internet users. Further, the report highlighted that rural India will be the primary driver of this growth (75 per cent), while in urban India the growth will be 16 per cent. The report also found that the local language user base is growing at 47 per cent annually, and reached 127 million in June 2015. Thus, it may be postulated that availability of

internet content in local languages will increase the number of internet users in India.

2.4 Disability

In the evolving information-based society, providing digital access and digital services to persons living with disabilities has become an issue of major importance. The word disability indicates human limitation of one kind or another, in performing various tasks performed by other human beings in general. Disability may be of one or more kind—motor, mental or sensory, including visual and hearing. Over 26.8 million people in India are suffering from one or the other form of disability, which is equivalent to 2.1 per cent of the total population. Among the total number of disabled people in the country, 14.9 million were males and 11.8 million were females, although the number of disabled was more in rural than in urban areas (Census, 2011). Ghai (2002) noted that extant socio-cultural exclusionary processes compounded disability-related exclusion for women leading them to be doubly excluded.

The lack of access to information is a major problem for people with disabilities. Though no data is available on the ownership of ICT devices and internet usage by people with disabilities, still it can be said that due to different kinds of limitations, persons with disabilities are not able to use ICTs with ease. Disabled users face many difficulties in accessing and using ICTs—motor disabilities may restrict the use of input devices, a visually impaired user may have difficulty in seeing display devices, a hearing impaired user may have difficulty in hearing audio information, and a person with learning/cognitive disability may have problem in understanding system operations.

In order to facilitate equal and unhindered access to electronics and ICTs by PWDs, the Ministry of Electronics and Information Technology (2013) formulated the 'National Policy on Universal

Electronic Accessibility’ that recognizes the need to eliminate discrimination on the basis of disabilities and to facilitate equal access to electronics and ICTs. The policy also recognizes the diversity of differently-abled persons and provides for their specific needs, covers accessibility requirements in the area of electronics and ICTs, and also recognizes the need for ensuring that accessibility standards and guidelines, and universal design concepts are adopted and adhered to. India is also plagued with a host of issues including, but not limited to, the lack of institutional funding for educational initiatives for children with disabilities (UNESCO, 2013).

ICTs along with assistive technologies have helped persons with disabilities to access digital information and overcome various obstacles faced in all types of environments. Some of the assistive technologies such as touch screen interface can be beneficial when used in combination with software like on-screen keyboards, or other assistive technology, by making computing facility accessible to people who have difficulty in using computers.

Also, a range of software is available for the visually impaired that makes using a computer an easier, more enjoyable and more productive experience. A screen reader transmits whatever text is displayed on the computer screen into a form that a visually impaired user can process (usually tactile, auditory or a combination of both). But many people cannot afford this as the hardware for screen-reading is usually very expensive, and websites without any accessibility features aren’t compatible with screen readers or their new features, making it a major challenge for visually impaired users to comprehend the information. This policy shall be covered in a following section in the chapter.

Overall, the cost of assistive technologies comprising the cost of the technology as well as the cost of assistive technology assessment, training and support services, is still a significant barrier that prevents persons with disabilities from fully accessing

digital services (See Shilpi Kapoor’s quote below). Even when they are free, assistive technologies or embedded accessibility features in commodity products may still remain unused if there is a lack of experts and rehabilitation professionals trained in the use of these technologies and features.

Shilpi Kapoor, Founder of Barrier Break addressed the nature of the problem saying,

Many economic factors play a vital role in access to ICT and assistive technology, the foremost being affordability and availability. With an income below average, most persons with disabilities are unable to get access to ICT and assistive technology. Access to Internet in rural or remote areas is also a problem. Many in the rural areas are not aware of funding options if any and do not know where to approach for subsidized rates. Proper training is also an important factor. Just having a technology without knowing how to use it is a waste (2016).

To overcome the barriers of inaccessible web design, Web Accessibility Initiative (WAI, n.d.) guidelines are adopted for promoting the use of ICTs for people with disabilities. These guidelines are published and broadly used for the World Wide Web Consortium (W3C) Web Accessibility Initiative. Web Content Accessibility Guidelines (WCAG) 2.0 give a range of recommendations for making web content more accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity, among others. Web applications developed using these guidelines often make web content more accessible to users in general. These standards have been around for a decade but still much of the web remains inaccessible to the disabled population.

According to a survey conducted by the Centre for Internet and Society (CIS) in 2012, almost 25 per cent of 7800 government websites failed to

open and the remaining had accessibility barriers. The web accessibility survey report of Indian government websites, revealed that out of the 200 government websites tested, only two were found to be disabled-friendly (Minhas, 2014). There are around 7800 websites of Government of India and even the few that claim accessibility, don't meet the international standards.

Despite the growing awareness of web accessibility issues, people with disabilities are still facing barriers to digital access and digital services; they need to switch and coordinate with different information-seeking strategies such as browsing, scanning, etc. Individuals using screen readers face navigational problems due to a lack of understanding of the different ways in which users interact with and navigate web-based resources. Thus, assistive technologies provide limited information on web page layout by imposing navigational constraints. Other barriers contributing to digital exclusion of the disabled are interface design and the interpretation of speech synthesis to convey the content on the page. Screen readers are voice synthesizers that can read the text on a screen. However the internet is inaccessible to the blind and visually impaired users because the screen reader is unable to read the graphically based web page (Cullen, 2001).

Besides, cost of technology and limited awareness create an obstacle in accessing ICTs. Estimates from the 58th round of NSSO, conducted in 2002 showed that only 26.3 per cent of disabled persons were engaged in economic activities. Thus, economic instability makes it difficult for PWDs (Persons with Disability) to afford computer and other digital devices (Somavia, 2009).

It is quite obvious from the above that the degree of ICT usage is limited among persons with disabilities and the situation becomes more challenging with PWDs residing in rural areas and those belonging to low-income groups.

2.5 Gender

The barriers women and girls face in getting online both reflect and reinforce gender norms. The gender digital divide is one of the most significant inequalities amplified by the digital revolution.⁸ The IAMAI report (2015) reveals an unsettling gender gap when it comes to accessing the internet—males account for 71 per cent of internet users, while women account for just 29 per cent. The gap is slightly lower in urban India, with men accounting for 62 per cent and women 38 per cent. The gap is quite stark in rural India, where the men to women internet user ratio stands at 88:12. In the Gender Gap Index (World Economic Forum, 2016), India ranked at 87 out of 144 countries on gender-based disparities based on economic, political, education, and health-based criteria. In India, marked disparities in education, income, employment, age, location (urban or rural) and cultural norms restrict women's ownership of phones and access to the internet, thus contributing to digital exclusion.

The prevalence of traditional restrictions has also served to hamper women's access to technology. The most important concern is the bizarre restrictions on women using mobile phones in rural India. Some groups in India inhibit women's access to technology and impose bans on women using and owning mobile phones by saying that mobile phones were 'debasing the social atmosphere' by leading young women to elope (Aljazeera, 2016). In Bihar's Sunderbadi village in Kochadham block of Kishanganj district, the Panchayat imposed a penalty of INR 10,000 if an unmarried girl was found using a mobile phone (Shetty, 2012).

Social barriers prevent women from actively engaging with the digital world as most of the time they are monitored by male members of the family, in addition to the lack of support from other family members. The Women and the Web Report (Intel, 2013) revealed that one in five women in India believe that the internet is not 'appropriate'

for them. Many women are socially conditioned to believe that using the internet would not be useful for them, and if they did, their families would disapprove.

Other important factors determining women's online access are the affordability and awareness about the internet. The cost of internet access intersects with gender norms that discourage female internet use. The Women and the Web Report (2013) revealed that 40 per cent of women cited a lack of familiarity or comfort with technology as a reason for not using the internet and, particularly, women who were uncomfortable with technology lacked the exposure to internet technologies that would make them more aware and allow them to develop their computer and digital literacy skills. According to a report by the World Wide Web Foundation (2015), the two primary barriers keeping women offline were the perceived lack of know-how and high cost of internet. The report also stated that women are 1.6 times more likely than men to report lack of skills as a barrier to internet use. According to a survey conducted by Google, only one-third of the total Indian population with access to the internet were women and 49 per cent of women did not see any reason to access the internet (Indo-Asian News Service, 2015). So, lack of skills eventually affects their motivation and online behaviour.

Apart from all these factors, access to education hinders their participation in the digital space. Census of India (2011) clearly indicated that the female literacy rate (65.46 per cent) in India was lower than the male literacy rate (80 per cent); parents didn't send their daughters to schools and thus, restricted their involvement in many academic spheres. In India, 51 per cent of women can read and write compared to 75 per cent of men, and without this fundamental skill the internet and the benefits of the online world remain out of reach.

The most vulnerable group in terms of complete digital exclusion is women and the condition

becomes worse when they belong to the lower rungs of the economic ladder and reside in rural areas. India being a patriarchal society, it is difficult for women to reach for better opportunities and empower themselves not only within the household but also in their community spaces. Women are taught to be specialized in domestic work such as looking after siblings, cooking food, cleaning the house, etc., right from their childhood. The reality in census data clearly shows that the literacy rate among women is lower than men. In addition, women have always been accorded lower status than men and are dominated by male members within the family and society at large. In addition, women have low participation in the labour force in India. According to a report by the International Labour Organization (ILO), 2016, only 26.91 percent of the adult females in India participate in the workforce.

Even technologies are gendered with men's control of technology, information and knowledge limiting women's opportunity to learn, use and benefit from it. Both historical and current data show that women's access to technology lags considerably behind that of men. Melhem, Morrell & Tandon (2009) also claim that, 'Women and girls are poorly placed to benefit from the knowledge society because they have less access to scientific and technical education specifically and to education in general.' The skewed nature of women's access to ICTs in India reflects across all age groups. However, highly educated women are a notable exception, as they reportedly use the ICTs as much as men, suggesting that given educational opportunities and the means to do so, the results could have a levelling tendency with respect to the gender divide in digital inclusion.

Undeniably, cultural and societal norms, lack of education, control over finances, lack of access to ICTs, and a lack of comfort with technology make women digitally illiterate and hinder their participation in the digital space.

2.6 Age

Mark Prensky (2001) put across the concept of Digital Natives and Digital Immigrants where he said that today's generation is called N-gen (N for Net) or D-gen (D for digital) where all students are the 'native speakers' of the digital language of computer, video games and the internet, whereas Digital Immigrants refers to those who were not born into the Digital Age but have at some point of time become fascinated with the new technology. Today, these Digital Immigrants are turning to the internet for getting information or building social networks, and are in the process of learning the digital language. Digital Natives, that includes the youth, are acquainted with digital literacy and education; therefore, these people reap the maximum fruits of ICTs.

The Pew Research Centre (2015) found that there are big demographic differences with regard to internet access in the United States. It can be postulated that similar to the findings in the US, younger, more-educated and higher-income Indians are more likely to use the web than older, less-educated and lower-income Indians (relative to the median household income within India). A comScore report (2013) highlighted that men under 35 and women between 35 and 44 are heavier Internet users. According to the Ericsson Consumer Lab report (2015), mobile internet users grow substantially, with four times the number of users over the age of 50, and three times the number of middle-aged users increasing in the past two years.

According to 'Online and upcoming: The Internet's impact on India', young people (those under 35 years) are nearly twice as likely as older people to use internet-related technologies such as smartphones and Voice over Internet Protocol (VoIP), and they show a greater propensity to transact online and use electronic social networking modes that ride on India's expanding 3G/4G telecom networks in urban centres (McKinsey & Company, 2012).

Mukherjee (2011) stated that only the educated and affluent class is proficient in ICT usage in India, and dependence of the elderly limits their access and capacity to reap the benefits of ICT usage. IAMAI and IMRB (2013) also reported that 15 per cent of the senior citizens accessed the internet from cyber cafes, and 81 per cent of them are using the internet for more than five hours a week. In terms of the services accessed on the internet, 62 per cent of them used it for watching news online and 2 per cent read news on their mobile. About 26 per cent of them look for stock quotes and engage in trading, 38 per cent of senior citizens are using the internet for online banking services and 21 per cent for online shopping. Singh's (2004) study also highlighted that persons aged 15 to 24 (45 per cent) used the internet daily. Older respondents, especially in the 45 to 54 year old category (27 per cent), used the internet once a month.

The other factors that influence the elderly's internet use are socio-economic status, psychological capital (e.g., depressive symptoms, general anxiety symptoms, and general self-efficacy) and social capital (e.g., indicators of social integration/ties and social support). Other than these, usability problems (e.g., small fonts, difficulty of navigation) and associated frustration with the systems, partly due to the cognitive, perceptual, and motor skills, are some of the other reasons that contribute to digital exclusion of the elderly.

According to the Central Statistics Office, Government of India (2016), India has 103.9 million people above 60 years of age. The issues of digital inclusivity become more complex with the physical and cognitive limitations associated with ageing. The vulnerability among the older people is not only due to an increased incidence of illness and disability, but also due to their economic dependency upon their spouses, children and other younger family members. It is clear that a digital divide exists between age groups because the youth are more exposed to technology and are willing to

use it, whereas older people are resistant to change and avoid the use of technology.

3. Process of Digital Exclusion

The exclusionary processes surrounding digital tools and services have long been thought of in isolation. However, in recent years, a more comprehensive approach to exclusion and inclusion studies has been on the rise.

There are complex processes and reasons for India's lack of progress in providing equitable digital access to its citizens—they may be attributed to institutional weakness, policy detachment and the lack of context-specific solutions, among others. Exploring the myriad reasons is beyond the scope of this chapter. This section seeks to explore some specific aspects and processes of digital exclusion.

3.1 Ineffective Agencies

The modest liberalization of the economy in India that began in the 1980s aimed to transform the digital economy and digital access. IT initiatives at the national level were started in the year 1981 with the establishment of National Informatics Centres (NIC) at all the district headquarters in our country. Under the aegis of NIC, many projects like computerization of land records, Public Grievance Redress Monitoring System, Distance learning programme, computerization up to the *taluka*⁹ level, creation of State Wide Area Network (SWAN), video-conferencing, training programme for creating awareness, etc., have been undertaken.

In 1999, the Ministry of Information and Communication Technology (MCIT) was formed. The Ministry adopted ICT for promoting literacy, improving quality of education, which resulted in qualified professionals and IT-enabled jobs for Indians. It is also employing IT for good governance, for empowerment of people and their participation

in shaping policies of governments, and overseeing it.

The National IT Task Force was constituted in 2003 to provide guidelines for development with the aim to make India an IT superpower. It focused on a number of programmes and policies designed to build the capacities of Indian institutions in IT and IT enabled Services (ITeS). The IT Task Force focused exclusively on increasing institutional access to technology, without any focus on last-mile connectivity, which would provide ICT access to the individuals at the bottom of the pyramid.

India's focus until the mid-2000s was exclusively to improve this institutional access to allow for a top-down model of development that ultimately fell short of its intended goals, and individual access to digital tools remained abysmally low. This is reflected in the limited penetration of computers which stood at 1.4 per cent in 2005 (Times News Network, 2005).

Access to ICTs was mediated by their relatively high price and unavailability at grassroots levels and to a large extent, still continues to be.

3.2 Exclusion by the State

Miliband (2006) spoke about the multi-dimensionality of exclusion and highlighted certain key ideal government approaches to exclusion, saying:

- It is relative and relational—exclusion has multiple factors of causation and is determinant on a continuum of exclusion for different individuals in the spectrum.
- It is multi-dimensional—based on a denial of resources, rights, goods and services and the inability to participate in normal relationships and activities.
- It is embedded in power relations that constrain and define the capabilities and choices of individuals.

Government policies/projects may be designed with the intention of promoting greater inclusion. However, there is a considerable gap between the intention of such policies/projects and the actual implementation on ground. This is caused due to ineffective and detached policy/project design. The approach cited by Miliband is frequently overlooked.

Additionally, the multidimensional nature of ICT inclusion projects means that, while the Ministry of Electronics and Information Technology (MeitY), formerly a department under the Ministry of Communications and Information Technology (Sharma, 2016), is the nodal ministry for ICT, interventions in education, health, rural governance, etc., are anchored by different ministries.

The core policies that deal with IT across the country is the Information Technology (IT) Act, 2000 (Ministry of Law, Justice and Company Affairs (Legislative Department), 2000) and the IT (Amendment) Act, 2008 (Ministry of Law and Justice (Legislative Department), 2009). These laws only deal with the techno-legal aspects of IT in the country and define violations and penalties. They have no direct impact on digital exclusion.

When examined through the lens of human rights, it can be said that the imposition of criminal penalties on legitimate expression online is creating a chilling effect that may impact new internet users unfairly. There is evidence to show that this avenue of exploration is, unfortunately, beyond the purview of this chapter but it nonetheless highlights the nuanced challenges towards achieving holistic digital inclusion in India.

At the 32nd session of the United Nations Human Rights Council, a non-binding resolution titled ‘The promotion, protection and enjoyment of human rights on the Internet’ (United Nations General Assembly, 2016) was adopted which seeks to promote greater access to the internet and a rights-based approach to maintaining the tenets of the

Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR). A set of amendments was led by China and Russia, which aimed at reducing the protections of the tenets of the UDHR and ICCPR within the resolution. India, surprisingly voted in favour of the amendments (Article 19, 2016). We note this in particular because the Digital India Plan, which is explored in detail further in this chapter, aims at providing universal internet access. At the same time, the government seems reluctant to sign a non-binding resolution to incorporate a rights-based approach to ensuring this access. This is perhaps, the most telling form of state-led digital exclusion.

3.2.1 National Policy on Universal Electronic Accessibility, 2013

The National Policy on Universal Electronic Accessibility, referenced in the earlier section, is the only policy document available on the MeitY website that deals with increasing digital inclusion. However, a review of this policy reveals gaps in the cognizance of the inter-sectionality inherent in the goal of providing universal access to persons with disabilities. As noted in the earlier section, PWDs are more likely to have reduced income and employment opportunities. This, in turn would also decrease their opportunities to access digital tools and services. The policy, while recognizing ‘the diversity of differently abled persons’, only specifies differently-abled women and children as a specific target group. It does not account for PWDs from the poorer and marginalized sections.

3.2.2 National Broadband Policy, 2004 and National Telecom Policy, 2012

The National Broadband Policy, 2004 (Ministry of Communications and Information Technology, 2004), was created with the intention of increasing the proliferation of broadband connectivity in the country, which at the time of drafting stood at

0.02 per cent. This policy only took cognizance of provisioning broadband access in rural areas, with no mention on how to increase access for women, PWDs or the elderly.

The National Telecom Policy (NTP), 2012 (Ministry of Communications and Information Technology, 2012), was adopted with the intention of addressing issues in telecom proliferation and regulation, that have arisen with the increasing penetration of telecommunication and internet in the country. The NTP recognizes the need for increasing telecom penetration in the rural and remote geographical regions of the country. It does not focus on the intersections of exclusion either.

Reassuringly, the NTP, 2012 did mention creating a 'Right to Broadband' that would focus on rural and remote areas, but no work has been done in that regard yet.

The state, in its policy formulation does not explore the myriad of extant exclusionary processes that plague the intended beneficiaries of these policies. This leads to widening traditional exclusions in addition to digital exclusion.

We posit that exclusionary processes exist on the ground during the implementation of government projects, with little or no empirical evidence available about the discrimination and exclusion involved. However, there exists anecdotal evidence (See Box 2) which echoes the discrimination found in the implementation of the public distribution system in India, particularly the Mid-Day Meal

Scheme (MDMS) and public health delivery systems. Studies have found that these programmes are fraught with issues surrounding physical access, participation and community-level access for individuals from Scheduled Castes and Tribes.

Thus, it may be postulated that since state actors/functionaries are the real on-ground implementers of government programmes and policies, the motivations of these actors may lead to the reinforcement of differential access on social, economic and cultural grounds. While they may genuinely believe in the programme, they are still susceptible to personal biases.

3.3 Poor Implementation of Programmes

3.3.1 Common Service Centres under the National e-Governance Plan

In 2005, the government launched the National e-governance Plan (NeGP, 2016) that placed a major focus on the development of technology-enabled governance services to 'improve the delivery of public services and simplify the process of accessing them.' The NeGP introduced the Common Service Centre (CSC), which was conceptualized as 'front end service delivery outlets enabling smooth and transparent governance at the village level.' They were envisioned as change agents that would 'promote rural entrepreneurship, build rural capacities and livelihoods, enable community participation and affect collective action for social change—through a bottom-up model that focuses

Box 2: Discrimination in Access to Digital Services

In a village outside Coimbatore, the Common Service Centre is run by a dominant caste man. While he may allow men from lower castes to access the CSC, he is strictly against women from lower castes accessing the CSC. His argument is that women, especially lower caste women, do not have any need of accessing digital tools and services. CSC operators are an integral part of the implementation of the digital inclusion agenda of the Government of India.

Anonymous quote received by Research Team, 2016

on the rural citizen.' CSCs are essentially telecentres or telecottages that provide public internet access points in rural areas. While noble in aim, challenges in implementation lead to scepticism about such

telecentres. Dagron (2001) observed that, globally, only one out of a hundred telecentres is actually useful for the community.

Table 2 gives the status of the CSC rollouts

Table 2: CSC Rollout as on September 2012					
States	Total CSCs to be set up	Roll Out as on 30th Sept 2012	Roll Out as on 30th Sept 2012 (per cent of target)	CSCs Connected	CSCs Connected (per cent of rolled out centres)
Andaman & Nicobar Islands	45	10	22.2%	10	100.0%
Andhra Pradesh	4687	3105	66.2%	3110	100.2%
Arunachal Pradesh	200	200	100.0%	141	70.5%
Assam	4375	3881	88.7%	3136	80.8%
Bihar	8463	6608	78.1%	5063	76.6%
Chandigarh	13	25	192.3%	30	120.0%
Chhattisgarh	3385	2460	72.7%	1248	50.7%
Delhi	520	0	0.0%	0	0.0%
Goa	160	29	18.1%	29	100.0%
Gujarat	13,685	13,685	100.0%	13,685	100.0%
Haryana	1159	0	0.0%	0	0.0%
Himachal Pradesh	3366	2803	83.3%	2048	73.1%
Jammu & Kashmir	1109	717	64.7%	544	75.9%
Jharkhand	4562	3292	72.2%	2538	77.1%
Karnataka	5713	800	14.0%	800	100.0%
Kerala	2200	2235	101.6%	1899	85.0%
Lakshadweep	18	12	66.7%	12	100.0%
Madhya Pradesh	9232	9270	100.4%	8549	92.2%
Maharashtra	10,846	10,428	96.1%	8116	77.8%
Manipur	399	399	100.0%	127	31.8%
Meghalaya	225	225	100.0%	115	51.1%
Mizoram	136	136	100.0%	107	78.7%
Nagaland	220	0	0.0%	0	0.0%
Orissa	8558	5302	62.0%	3632	68.5%
Puducherry	66	65	98.5%	65	100.0%
Punjab	2112	1588	75.2%	1588	100.0%
Rajasthan	6626	4224	63.7%	4178	98.9%
Sikkim	45	45	100.0%	43	95.6%
Tamil Nadu	5440	2683	49.3%	2683	100.0%
Tripura	145	145	100.0%	197	135.9%
Uttar Pradesh	18,745	12,828	68.4%	10,025	78.1%
Uttarakhand	2804	2329	83.1%	1406	60.4%
West Bengal	6797	6120	90.0%	5609	91.7%
TOTAL	1,26,056	95,649	75.9%	80,733	84.4%

Source: Open Government Data (OGD) Platform India

across various states in 2012 from data.gov.in. The table shows that most of the states had not been able to meet the rollout deadline. At the start of this project it was stipulated that the project should achieve the 100 per cent rollout status within 18–24 months after signing the Service Agreement with the respective state governments.

However, when we see the information presented in Table 2, as of 2012, only 10 states have been able to achieve full rollout of CSCs across the state. The Andaman & Nicobar Islands, Delhi, Goa, Haryana, Karnataka and Nagaland have zero per cent rollout of the CSC. It is particularly distressing to see the lack of CSC connectivity in Haryana and Nagaland, which suffer from issues of literacy and geographical connectivity. On an all-India scale, only 75.9 per cent of the total allocated CSCs have been created. However, over 80 per cent of constructed CSCs are connected.

One important reason for the poor rollout of these centres was the poor IT infrastructure, lack of adequate institutional frameworks and governance mechanisms for ensuring the successful rollout of the CSC programme.

The state governments were expected to provide premises for the setting up of these centres in their Panchayat buildings or block offices. But there seemed to be a scarcity of space for the same across states (Dass and Bhattacharjee, 2011). In states like Jharkhand some of the Panchayat blocks did not have space. Tripura on the other hand had assigned premises in which the ceiling of the room was missing. Another problem, particularly in the north-eastern states as well as states like Jharkhand and Chhattisgarh, was the uneven and rough geographical terrain. Some of the villages are located in remote and inaccessible locations making it impossible to set up a centre in those areas. This was indeed unfortunate considering it is the people living in such areas who have a greater need of easy access to government services.

Dass and Bhattacharjee also identified issues in the proper implementation of the CSC project, citing lack of Government to Citizen (G2C)¹⁰ services, poor connectivity, lack of Village Level Entrepreneur (VLE) recruitment with the right skill sets (due to low literacy rates in the concerned areas) and lack of cooperation from government officials, especially at lower levels. In addition to these issues, lack of proper infrastructure and lack of connectivity is a key factor in the failure of the CSC project.

Due to the involvement of the central government, state governments and private players through a unique PPP model, a comprehensive budgetary analysis is not possible.

3.3.2 Digital India Plan

In 2014, a newly elected government, led by Prime Minister Narendra Modi, launched the Digital India (DI) Plan (Ministry of Electronics and Information Technology, Government of India, 2015) that aimed at building on the NeGP and working towards improving individual access to technology across the country. The DI Mission centred on three key aims: Digital Infrastructure as a Utility to Every Citizen, Governance and Services on Demand, and Digital Empowerment of Citizens. Its approach to achieve these aims was through nine unique pillars:

1. Broadband Highways
2. Universal Access to Mobile Connectivity
3. Public Internet Access Programme
4. e-Governance—Reforming Government through Technology
5. eKranti—Electronic delivery of services
6. Information for All
7. Electronics Manufacturing
8. IT for Jobs
9. Early Harvest Programmes

The DI Plan is, at the time of writing, exactly two years old and while new initiatives like DigiLocker, eSign and the MyGov App have been launched, the efficacy of these projects is still debatable. A review of 18 apps launched under the DI Plan, conducted in August 2016, showed that almost all of them are inaccessible or partially inaccessible to individuals using screen readers (Narasimhan, 2016).

National Optical Fibre Network/BharatNet

One of the initiatives under Pillar 1 of the DI Plan was the revamping of the National Optical Fibre Network (NOFN) into the newly envisioned BharatNet (Rathee, 2016). The NOFN has its roots in the NeGP, which aimed to provide ICT enabled delivery of Government services. Public IT platforms such as State Wide Area Networks (SWANs), State Data Centres (SDCs) and Common Service Centres (CSCs) facilitate this delivery.

It aims to provide broadband connectivity through optical fibre to 2,50,000 Gram Panchayats in an effort to provide last mile connectivity as critical infrastructure. The aim was to provide all necessary government services to citizens in an effort to allow them access to information, which would lead to their empowerment and development. It was a result of the coming together of policy and a vision

of managing a high quality network with a link to services to provide on-demand access to citizens.

The initial timeline of the NOFN was to cover 1,00,000 gram panchayats by 31 March 2014 in the first phase; to cover another 1,00,000 by March 2015 in the second phase and an additional 50,000 by September 2015 in the final phase. This timeline was extended once in 2014 to March 2015, March 2016 and December 2016 for the three phases. The second extension to the timeline came with the change of the first 1,00,000 panchayats to be covered by March 2017. While no deadlines for the other phases have been specified, the intention is to complete the coverage of 2,50,000 panchayats by December 2018. The implementing partners of the NOFN—Bharat Sanchar Nigam Limited (BSNL), RailTel Corporation of India Limited (RailTel) and Power Grid Corporation of India Limited (PGCIL) have also been called up by the Government for dragging their feet on the implementation of the project (Singh, 2016). According to the Department of Telecommunications (DoT), only 37 per cent of the total optical fibre planned has been laid (Table 3).

As of April 2016, only 48,199 panchayats of the 1,00,200 were targeted under Phase 1, indicating a 48 per cent success rate. Of the panchayats connected to the NOFN, only 6727 panchayats

Table 3: Implementation Status of NOFN by Partner

Implementing Partner	Districts	Blocks	Gram Panchayats	Optical Fibre to be laid (Km)	Optical fibre laid (Km)
BSNL	410	2146	84,366	1,85,742	70,298 (37.85%)
RailTel	44	225	8676	19,331	4967 (25.69%)
PGCIL	28	356	7156	17,198	7236 (42.07%)
Total	482	2727	1,00,200	2,22,271	82,501 (37.12%)

Source: Department of Telecommunications Outcome Budget 2016–17

Table 4: State-wise Plan of Gram Panchayats (GPs) to be covered under NOFN/Bharat Net Project Phase-I as on May 2016

S. No.	States/ UTs	No. of Gram Panchayats (GPs)- Phase I	No. of GPs where optical fibre cable (OFC) laid	No. of GPs lit (with broadband connectivity)
1	Jammu & Kashmir	624	91	0
2	Himachal Pradesh	283	28	0
3	Punjab	6128	3051	0
4	Haryana	6090	3147	160
5	Rajasthan	6967	3757	308
6	Chandigarh	12	12	12
7	Uttarakhand	1767	711	183
8	UP (West)	8040	2721	131
9	UP (East)	14,474	5910	70
10	Bihar	5202	2423	215
11	West Bengal	2713	723	0
12	Sikkim	0	0	0
13	Assam	1013	682	128
14	Jharkhand	1388	985	135
15	Odisha	3388	1633	104
16	Andaman & Nicobar	69	0	0
17	Arunachal Pradesh	256	22	0
18	Nagaland	743	154	0
19	Manipur	24	24	0
20	Meghalaya	638	52	0
21	Tripura	1021	492	75
22	Mizoram	163	0	0
23	Madhya Pradesh	10,516	5170	150
24	Chhattisgarh	2110	1550	514
25	Gujarat	5735	2203	116
26	Maharashtra	12,055	4865	201
27	Daman & Diu	0	0	0
28	Dadra & Nagar Haveli	0	0	0
29	Karnataka	5599	5008	2889
30	Andhra Pradesh	0	0	0
31	Telangana	2097	1558	106
32	Tamil Nadu	0	0	0
33	Kerala	977	1129	1129
34	Puducherry	98	98	101
35	Lakshadweep	10	0	0

S. No.	States/ UTs	No. of Gram Panchayats (GPs)- Phase I	No. of GPs where optical fibre cable (OFC) laid	No. of GPs lit (with broadband connectivity)
36	Goa* (All have been connected)	NA	NA	NA
	Grand Total	1,00,200	48,199	6727
		GPs where OFC is available as a percentage of Phase 1 target	48.10%	
			Connected GPs as a percentage of GPs where OFC available	13.9%
			Connected GPs as a percentage of Phase 1 target	6.71%

Source: RajyaSabha, Analysis by DEF Research Team.

have internet access, which is only 13 per cent of the connected panchayats or 6 per cent of the total scheduled for Phase 1 (See Table 4).

The NOFN was funded by the Universal Service Obligation Fund (USOF), with an initial corpus of INR 20,000 crores. However, according to a report (Committee on the National Optical Fibre Network, 2015), the actual total budget needed to achieve the vision of the NOFN is INR 72,778 crores. This represents a budget increase of 363.9 per cent.

3.3.3. Demonetization and the Push towards Digital Financial Payments

On 8 November 2016, the Government of India withdrew the status of all INR 500 and 1000 (high-value) notes as legal tender with immediate effect, citing the intention to curb tax evasion and counterfeit money (Reserve Bank of India, 2016). Overnight, about 86 per cent of the liquidity within the Indian economy was rendered invalid. Most of the Indian economy is based entirely on cash, with an estimated 85 to 90 per cent of all transactions taking place in cash (Reuters, 2016). The impacts of this action have been criticized by various quarters—Kaushik Basu, Amartya Sen,

Stephen Forbes and Prabhat Patnaik, apart from the opposition parties in the country (Roychoudhury, 2016; PTI, 2016; Forbes, 2016; Patnaik, 2016; PTI, 2016; ANI, 2016; PTI, 2016).

The currency demonetization drive and the frequent changes of rules regarding transactions (*Economic Times*, 2016; *Indian Express*, 2016) further led to significant human costs. The agricultural sector, due to undergo the *rabi*¹¹ crop planting season was hit especially hard with the withdrawal restrictions, despite measures taken by the government to ease stress on the farmers. This was compounded given the fact that a majority of farmers are not part of the formal banking system, due, in part to the lack of adequate infrastructure and bank branch penetration, with one report citing that ‘Four banks cater to 200 villages of about 2,000 people each’ (Firstpost, 2016). The CRISIL Inclusix, 2015, found that of the 35 administrative regions studied, 10 ranked low or below average on overall financial inclusion. The key crop belt of Uttar Pradesh, Bihar and Jharkhand all fall below average (CRISIL, 2015); which would lead to significant impacts on the ability of farmers in these belts to access cash and credit, leading to further

hardship and farmer suicides (La Via Campesina, 2017). Further, many of the farmers had just sold the produce from the earlier crop season and were left with the demonetized high-value notes that were not accepted anywhere else.

Despite all the intentions of the state in pushing digital financial payments, it is our contention that this too, represents how detached from reality state policies and programmes are. There are multiple considerations that policy makers did not take into account when making a decision to abruptly invalidate 86 per cent of the liquidity in the Indian economy and pushing digital payments.

- **Mobile connections in India**—According to figures released by the Telecom Regulatory Authority of India (Telecom Regulatory Authority of India, 2017) in October 2016, the total tele-density¹² stood at 86.25 per cent. This figure is often misleading as it accounts for the total of wireline and wireless subscribers. Exploring wireless tele-density paints a different picture; with a stark urban-rural disparity with urban tele-density standing at 155.35 and rural at 51.98. The penetration of mobiles, the key enabler of digital finance, is woefully lacking in the regions which account for 67.25 per cent of India's population (World Bank, 2015).
- **Smartphone penetration**—Smartphone penetration in India has been estimated at 29.8 per cent of the total mobile users in the country (Statista, 2015). Smartphones, as opposed to feature phones have the capability to access the internet and use third-party applications to enhance their functionality and flexibility of use. Given that most of the digital payments options, including the government's own BHIM application, run only on smartphones, it automatically excludes a significant per cent of the mobile phone users, in addition to those that do not have a mobile altogether.

The central government has also taken steps to incentivize the use of cashless digital payment systems, going so far as to state that 'An incentive of INR 10 will be given to the district administration for every individual who has shifted to digital payment mode and has made at least two digital transactions for day-to-day activities' (*Business Standard*, 2016). This incentive is, in the opinion of the authors, positively delusional as it still doesn't address the underlying gap; only incentivizing an activity that cannot be achieved.

- **Extant socio-economic and cultural exclusions**—The key mediators of traditional exclusionary process, already stated earlier in the chapter, would create 'double-trouble' for the effective implementation of the programme as financial exclusion is also mediated by these extant processes, similar to the case of the access to ICTs for women with disabilities.
 - A comprehensive assessment of the challenges faced by women in accessing digital financial services conducted by Klapper and Dutt (2015) showed that inequalities exist at different stages.
 - Demand-side inequalities like lack of identification, lower financial literacy; lack of financial independence and autonomy of agency, and socio-economic sanctions create a barrier-filled environment for women to demand access to digital finance.
 - Supply-side issues like patriarchal digital finance application design and marketing and the poor mechanisms for recourse can limit financial literacy.
 - Infrastructural and policy issues relating to legal and regulatory environments, Know-Your-Customer (KYC) rules, lack of adequate network access and

taxation limit the quality and depth of interventions.

- Finally, women's access to technology is a key barrier to accessing digital finance.

4. Consequences of Digital Exclusion

Digital divide between high, medium, low and non-users means disadvantaged users always have to play catch-up in obtaining access to ICTs because of weak digital infrastructure and lower levels of digital skills. Little research has been done on the impact of digital exclusion on the above-mentioned disadvantaged or socially excluded groups. Despite the lack of information, the following section provides an understanding of the consequences of digital exclusion on education, livelihood, social participation and citizenship.

4.1 Education

Internet access serves as a gateway to empowerment by building self-confidence, self-determination and the capacity to alter the structure that governs people's citizenship. ICTs are changing ways of doing things and increasing the overall efficiency of human activity. The Internet is enabling one to have access to almost any kind of information on one's fingertips. The use of ICTs in education not only enhances the knowledge and skills but also improves the educational content of both the learner and the educator.

Kulik (2003) conducted a meta-analysis of studies to identify the impact of e-learning on student outcomes. He identified the following trends:

- Students who used computer tutorials in mathematics, natural science, and social science score significantly higher in tests in these subjects compared to students who did not use computers. Similarly, students who used simulation software in science also

scored higher. However, the use of computer-based laboratories alone did not result in higher scores.

- Primary school students who used tutorial software in reading scored significantly higher on reading scores. Very young students who used computers to write their own stories scored significantly higher on measures of reading skills
- Students who used word processor or otherwise used the computer for writing scored higher on measures of writing skill.

4.2 Livelihood

India comprises 67.25 per cent of rural population (World Bank, 2015). NREGA, initiated in 2005, aimed at securing livelihood by providing at least one hundred days of guaranteed wage employment to rural households in India. Under this programme, ICT-based interventions were added to enable the rural population to access information on their work history, demand jobs against a dated receipt, and also receive wages on a biometric registration. This would require proper establishment and operationalization of a computer-based Management Information System (MIS) interconnecting all the gram panchayats, blocks, districts, states and the Ministry of Rural Development (MoRD).

The Unique Identification Authority of India (UIDAI) and MoRD signed a Memorandum of Understanding to integrate MGNREGA processes with Aadhaar. It was expected that Aadhaar would soon facilitate a range of MGNREGA, banking, insurance and other services for rural citizens. However, in spite of much hype by the government it was reported (Mathur&Bolia, 2016) that compensation paid on time drastically declined from 50.1 per cent in 2013–14 to 26.90 per cent in 2014–15. In 2008, the central government directed that all

Box 3: Wages of Delay

In Surguja district (Chhattisgarh), the administration relies on post offices as there are hardly any rural banks. In one block, the post office had only one employee who was responsible for opening and operating thousands of NREGA accounts. All the work is done manually as there are no computers. In addition, the postmaster complained that the formalities of opening accounts remained incomplete because he did not have enough passbooks. (The supply of passbooks in the district was delayed for months.) Similar problems have been reported wherever NREGA payments are made through post offices, in states like Rajasthan and Jharkhand.

Source: Kheera (2010).

MGNREGA wages be paid through banks and post offices. However, the banks and post offices were unable to cope with the volume of payments (Kheera, 2010). Similar arguments against linking Aadhaar to the Public Distribution System (PDS) have been made in a recent article in *The Hindu* (February 2017), wherein activist Kavita Srivastava observes that linking Aadhaar to social security systems, in this case for food entitlements, is not just unconstitutional, but works systematically against the poorest who are most often at the receiving end of subpar technology infrastructure required for a biometric identification system such as Aadhaar to function.

In the wake of falling market prices of food products, weather challenges, outdated methods of farming, high cost of production and often low yields and poor income, the central government started Kisan Call Centres. Live assistance is provided to farmers in their regional language. It is a combination of ICT and Agriculture technology. It enables farmers to have direct discussions with subject matter experts who provide instant solutions. Despite advertisements on TV and print, a survey reported in *Firstpost* (2014) showed that 70 per cent of the farmers surveyed never contacted a Kisan Call Centre, and 62 per cent had no idea that they are eligible for a minimum price. Lack of awareness about ICTs was a major hurdle in making both Kisan Call Centres and MGNREGA a success.

The push to digital payments along with the effects of demonetization have also had a strong negative impact on the informal sector in the country, with workers in the construction, industrial and service industry being disproportionately impacted. Many vegetable vendors have reported losses of over 50 per cent on a daily basis (Mitul, 2016; DNA, 2016). The lack of a choice of payment channels has also led to a massive reverse-migration of people from urban areas back to villages. This reverse trend has also broken the migrant-dependent nature of certain areas of the country (Naik, Kundri, & Parulkar, 2017; Mahaprashasta, 2016).

4.3 Social Participation

Digital exclusion leads to social exclusion by restricting people's accessibility to the internet, thereby narrowing down the social network where people can express their viewpoints, share their experiences and communicate.

Internet usage has positive benefits for the older people as these people perhaps face high rates of loneliness and depression. This occurs for a variety of reasons, including dearth of social ties, relocation to different types of living and care communities, and limitations of physical and mental health (Jylha, 2004). Social network sites such as Facebook not only provide a platform to reconnect with the people from one's past but also

bridge the generational gap. With ICTs increasingly integrated into every aspect of the modern world, access to ICTs is vital for a person's participation in the society.

The relationship of disabilities and digital inclusion and empowerment has been explored in depth by UNESCO, which states that digital exclusion of PWDs leads to increased inequalities in the ability of these persons to allow their social, political and economic integration. It also leads to a reduced scope of information, knowledge and activities available to them. The New Delhi Declaration of 2015 was the first document in 20 years issued by UNESCO on the issue of disability that was endorsed by its governing bodies (UNESCO, 2015). The Declaration recognized that for persons with disabilities, the issue of universal access to information and knowledge using ICTs is an inalienable human right and precondition to live independently and participate fully and equally in society. It also reasserted the commitment to the World Summit on the Information Society (WSIS, 2005), Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind or Visually Impaired (WIPO, 2013) and other internationally ratified development goals.

5. Recommendations

The previous sections have demonstrated how access to ICTs is a public good, explored some of the exclusionary processes and laid out impacts of digital exclusion on certain groups. The success of our recommendations depends on an understanding that digital exclusion has a predominantly socio-economic basis and is reinforced by entrenched hierarchical structures in the society.

As Pippa Norris (2001) noted, absolute social inequalities will continue to exist in internet access just as they exist in other dimensions of life; '... it would be naive to expect that the internet will

magically transcend information poverty overnight.'

This section aims to propose a set of recommendations that, if properly implemented can make significant strides towards bridging the digital exclusion gap.

1. There is a need for the government to realize that due to low per capita disposable income in India not everybody can have easy access to digital media and the internet. Since access to digital media ensures access to other basic entitlements like education, health, provident fund, food, etc., public provisioning of digital media becomes extremely important. It is recommended that it be provided at a subsidized rate in order to avoid the free rider problem.¹³ This will reduce misuse of resources and allow access to those who are actually in need and cannot pay the rate generated by the market.
2. Though there are different programmes initiated by the government to bridge the gender divide, still proper implementation is required to address the issues of literacy and poverty. To digitally empower women, digital ICT programmes must address socio-cultural barriers to women's access to internet and ICT devices.
3. The government should ensure that ICTs are fully integrated in education and training at all levels to bridge the digital divide. Also, existing programmes should be integrated with digital and information literacy targeting individuals with lower literacy levels.
4. The government should provide relevant support in assistive technologies and should organize ICT training for people with disabilities. In addition, all government websites should be made compatible with the W3C Guidelines and a process should

be put in place to ensure these standards are maintained to further guarantee successful implementation, and to make portals accessible to persons with disabilities and the elderly.

5. Awareness should be created among persons with disabilities about the availability of existing and emerging assistive technologies and independent living aids, as well as schemes for the same. Such information should be made available in the public domain including in local languages.
6. There needs to be more comprehensive research about internet usage patterns, challenges faced in accessing internet and the influence of digital exclusion on PWDs and older people. Due to the fractured nature of digital inclusion activities and budgets, further research needs to be conducted to comprehensively analyse digital exclusion.
7. The government should incentivize private and non-governmental actors in bringing technology to rural as well as other geographically inaccessible and remote areas.

Conclusion

We previously established the digital medium as a public good and highlighted how digital exclusion deprives citizens' access to other public goods and widens extant social, economic and cultural stratification in society. Digital inequality leads to deprivation from access to basic necessities like—

pension, daily wage, food, safe drinking water, basic health facilities and education, which dilutes the level of agency that a citizen can effectively exercise. On the one hand, the government aims at making India a superpower, and on the other, deeply rooted exclusionary processes lead to digital exclusion that further leads to the deprivation of often basic rights and needs, affecting the overall growth and dignity of an individual.

Cultural norms play an important role in limiting women's access to internet. Weak infrastructure, ineffective implementation, bureaucratic hurdles and weak monitoring have failed to bridge the digital divide between rural and urban areas.

To improve social welfare, it is important that the government provide public goods such as digital access, as it helps to avoid the problem of under-provisioning and under-consumption of information. It is important because it helps people living below poverty line to avail equal opportunities thereby reducing inequality.

In this chapter, we highlighted certain factors that reinforce digital exclusion—income, gender, age and disability. Individuals, who embody any one of these, lie on a continuum of exclusion. When one of the other factors also comes into play, the risk of exclusion increases manifold. It is especially important that the government should try to advocate equal rights, organize vernacular ICT trainings and provide relevant support to such individuals so that they are not excluded from accessing the internet and its related benefits.

Endnotes

1. E-MitraKendras are telecentres that enable villagers to get various entitlement-related services.
2. National Rural Employment Guarantee Act (or MGNREGA) is an Indian labour law and social

security measure that aims to guarantee the 'Right to Work'. It aims to enhance livelihood security in rural areas by providing at least 100 days of wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

3. Aadhaar is a 12-digit unique identification number issued by the Indian government to every individual resident of India. The Unique Identification Authority of India (UDAI), which functions under the Planning Commission of India, is responsible for managing Aadhaar numbers and Aadhaar identification cards.
4. Discretionary income is the amount of an individual's income that is left for spending, investing or saving after paying taxes and paying for personal necessities, such as food, shelter and clothing. Discretionary income includes money spent on luxury items, vacations, and non-essential goods and services.
5. A gram panchayat is the cornerstone of the Panchayati Raj system (local self-government organization) in India. It operates at the village or small town level and has a Sarpanch (head of village) as its elected head.
6. The Panchayati Raj system is a decentralized system of governance prevalent in rural areas in India. While the Panchayati Raj system is based on the traditional panchayat system, it was formalized through the 73rd Constitutional Amendment, 1992.
7. Denotified Tribes (DNTs), also known as VimuktaJati, are the tribes that were originally listed under the Criminal Tribes Act of 1871, as 'Criminal Tribes' and 'addicted to the systematic commission of non-bailable offences.'
8. The Digital Revolution refers to the advancement of technology from analogue electronic and mechanical devices to the digital technology available today. The era started during the 1980s and is ongoing. The Digital Revolution also marks the beginning of the Information Era.
9. A taluka or tehsil is an administrative division in India that includes a town or city that serves as the administrative centre with a few villages or other towns under its jurisdiction.
10. Government to Citizen Services are a set of certain services that the government provides to the citizen. In India, G2C services in India include Aadhaar Card, Voter ID Application, MNREGA job application, PAN Card application, etc.
11. The Rabi season is from October to February.
12. Teledensity is the number of telephone connections for every hundred individuals living within an area.
13. Free rider problem occurs when those who benefit from resources, goods, or services do not pay for them, which results in an under-provision of those goods or services.

References

- Acharya, S. (2010). *Access to Health Care and Patterns of Discrimination: A Study of Dalit Children in Selected villages of Gujarat and Rajasthan*. Retrieved 21 July 2016, from <http://www.dalitstudies.org.in/wp/wps0102.pdf>
- Aljazeera. (2016). India: Banning women from owning Mobile Phones. 26 February Retrieved 9 July 2016, from <http://www.aljazeera.com/news/2016/02/india-banning-women-owning-mobile-phones-160226120014162.html>
- Anonymous. (2013). India is now world's third largest Internet user after U.S., China. *The Hindu*. Retrieved 15 July 2016, from <http://www.thehindu.com/sci-tech/technology/internet/india-is-now-worlds-third-largest-internet-user-after-us-china/article5053115.ece>
- Azari, R., & Pick, B. J. (2009). *Understanding Global Digital Inequality: The Impact of Government, Investment in Business and Technology, and Socioeconomic Factors on Technology Utilization* [Electronic version]. Paper presented at the Hawaii International Conference on System Sciences 42, 1–10, Hawaii.
- Azari, R., & Pick, B.J. (2005). Technology and society: socioeconomic influences on technological sectors for Unites States Counties. *International Journal of Information Management*, 25(1), 25–37.
- Balarajan, Y. et al. (2011). India: Towards Universal Health Coverage 4: Health Care and Equity in India [Electronic Version], *Lancet* 2011, Vol. 377; 505–15.
- Basu, P.K., Chellaney, B., Khanna, P. & Khilnani, S. (2005). *India as a New Global Leader*. London: The Foreign Policy Centre. Retrieved 6 July 2016, from <http://fpc.org.uk/fsblob/377.pdf>
- Calandro, E., Gillwald, A. & Zingales, N. (2014). *Mapping Multistakeholderism in Internet Governance: Implications for Africa*, Research ICT Africa. Retrieved 24 July 2016, from http://www.researchictafrica.net/publications/Evidence_for_ICT_Policy_Action/Discussion_paper_-_Mapping_Multistakeholderism_in_Internet_Governance_-_Implications_for_Africa.pdf
- Census of India. (2011). *Literacy in India*. New Delhi, India: Office of the Registrar General & Census Commissioner, India. Retrieved 7 July 2016, from <http://www.census2011.co.in/literacy.php>
- Committee on the National Optical Fibre Network. (31 March 2015). *Report of the Committee on the National Optical Fibre Network (NOFN)*. New Delhi, India:

- Department of Technology, Government of India. Retrieved 10 October 2016, from Bharat Broadband Network Limited: <http://www.bbnl.nic.in//admnis/admin/showimg.aspx?ID=683>
- Crandall, M., Fisher, K. E. (2009). *Digital Inclusion: Measuring the Impact of Information and Community Technology*. Medford, New Jersey: Information Today, Inc.
- Cullen, R. (2001). Addressing the digital divide. *Online Information Review*, 25 (5), 311–20.
- Dagon, G. (2001). Prometheus riding a Cadillac? Telecentres as the promised flame of knowledge [Electronic version]. *Journal of Development Communication: Special Issue on Telecentres*, 12(1).
- Dass, R. & Bhattacharjee, A. (2011). *Status of Common Service Centre Program in India: Issues, Challenges and Emerging Practices for Rollout* (IIM, Ahmedabad WP No. 2011-02-03). Retrieved 5 October 2016 from Indian Institute of Management, Ahmedabad: <https://web.iima.ac.in/assets/snippets/workingpaperpdf/2011-02-03RajanishDass.pdf>
- De Haan, J. (2004). A multifaceted dynamic model of the digital divide [Electronic version]. *IT & Society*, 1(7), 66–88.
- Department of Electronics and Information Technology, Government of India. (n.d.). *Digital India: A programme to transform India into a digitally empowered society and knowledge economy*. New Delhi, India: Department of Electronics and Information Technology. Retrieved 18 July 2016, from <http://www.niab.org.in/DIW/DigitalIndiaPresentation.pdf>
- Department of Telecommunications, Government of India. (2016). *Outcome Budget 2016-17*. New Delhi, India: Department of Telecommunications. Retrieved 22 October 2016, from Department of Telecommunications: http://www.dot.gov.in/sites/default/files/Outcome%20Budget%202016-17_0.pdf?download=1
- DFID. (2005). *Reducing Poverty by Tackling Social Exclusion: A DFID Policy Paper* (not known)
- Digital Empowerment Foundation. (2016). *TBI Blog: This Man is Training HIV-Infected Children in Computers to make them Financially Independent*. The Better India. 22 July. Retrieved 18 August 2016, from <http://www.thebetterindia.com/59080/def-digital-literacy-shanti-bhavan-hiv-children-puducherry/>
- Dijk, J. (2006). Digital divide research, achievements and shortcomings [Electronic version]. *Poetics*, 34(4–5), 221–35.
- Dutta, P., Murgai, R., Ravallion, M., & van de Walle, D. (2014). *Right to Work? Assessing India's Employment Guarantee Scheme in Bihar*. Equity and Development. Washington, DC: World Bank. Retrieved 16 August 2016, from <https://openknowledge.worldbank.org/handle/10986/17195> License: CC BY 3.0 IGO.
- Ericsson ConsumerLab. (2015). *Mobile Broadband Creates New Behaviors Amongst Urban Indian Smartphone Users*. Stockholm, Sweden: Ericsson. Retrieved 8 August 2016, from http://www.ericsson.com/news/150428-mbb-creates-new-behaviours_244069646_c
- Ernberg, J. (1998). *Universal Access for Rural Development from Action to Strategies*. First International Conference on Rural Telecommunications. Washington. Retrieved 15 September 2016, from <http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=066CE37AACED514D7734E74D566F7A00?doi=10.1.1.597.9658&rep=rep1&type=pdf>
- Fernandes, S. (2016). *SushmaSwarajComes To The Rescue Of Indian Women Stuck In Germany*. Retrieved 5 July 2016, from <http://www.oneindia.com/new-delhi/sushma-swaraj-comes-to-the-rescue-of-indian-woman-stuck-in-germany-2001832.html>
- Ghai, A. (2002). Disabled Women: An excluded agenda of Indian Feminism. *Hypatia*, 17(3), 49–66.
- Ghosh, A. (2014). CGNetSwaraj: Shifting the power of journalism to the mobile phone for Adivasis [Electronic version]. *Live Mint*. 20 March.
- Hache, A. & Cullen, J. (2009). ICT and Youth at Risk: How ICT-driven initiatives can contribute to their socio-economic inclusion and how to measure it. *JRC Scientific and Technical Reports*.
- Hargittai, E. (2002). Second-level digital divide [Electronic version]. *First Monday*, 7(4).
- ILO (2016). *World Employment and Social Outlook - Trends 2016*. International Labour Office – Geneva: ILO, 2016.
- Indo-Asian News Service. (2015). *Women form only a third of India's Internet population: Google*. Retrieved 14 July 2016, from <http://www.bgr.in/news/women-form-only-a-third-of-indias-internet-population-google/>
- Indo-Asian News Service. (2015). *Almost Half of Indian Women find no reason to use internet, says Google* [Electronic version]. *The Indian Express*. Retrieved 23 July 2016, from <http://indianexpress.com/article/technology/technology-others/49-indian-women-find-no-reason-to-use-internet-google/>
- Indo-Asian News Service (2016). *India's Third International Internet Gateway to Be Operational Soon*. Retrieved 2 June 2016, from <http://gadgets.ndtv.com/internet/news/indias-third-international-internet-gateway-to-be-operational-soon-789608>
- Intel. (2013). *Women and the Web*. Intel Corporation. Retrieved 18 June 2016, from <http://www.intel.com/content/www/us/en/technology-in-education/women-in-the-web.html>
- Johari, S. (2016). *28% of mobile internet users in Dec'15 came from rural India: IAMAI*. Retrieved 4 July 2016, from <http://www.medianama.com/2016/02/223-india-june2016-371m-mobile-internet-users/>
- Jylhä M. (2004). Old age and loneliness: cross-sectional and

- longitudinal analyses in the Tampere Longitudinal Study on Aging [Electronic version]. *Canadian Journal of Aging*, 23(2), 157–68.
- Kapoor, S. (2 August 2016). Personal Interview.
- Kheera, R. (8 May 2010). Wages of Delay. *The Frontline*. Retrieved 22 October 2016 from <http://www.frontline.in/static/html/fl2710/stories/20100521271010500.htm>
- Kularski, C. & Moller, S. (2012). The digital divide as a continuation of traditional systems of inequality [Electronic version]. *Sociology*, 51, 1–23.
- Lips, M. (2010). Rethinking citizen – government relationships in the age of digital identity: Insights from Research [Electronic version]. *Information Polity*, 15, 273–289.
- Loader, B. D. & Keeble, L. (2004). *Challenging the digital divide? A literature review of community informatics initiatives*. York, UK: Joseph Rowntree Foundation.
- Manzar, O. (2016a). Digital Exclusion Raises Cost of Living for Rural Masses. *LiveMint*. 13 July Retrieved 8 August 2016, from <http://www.livemint.com/Opinion/mhTzE6FkJ85MJZCtfAG5fL/Digital-exclusion-raises-cost-of-living-for-rural-masses.html>
- (2016b). Including Agariyas. *LiveMint*. 9 March Retrieved 21 October 2016, from <http://www.livemint.com/Opinion/Dp2j5MbUDYphcoOxP8vwuJ/Including-the-Agariyas.html>
- (26 March 2015) Mobile Phones empower Women. *Mint*. Retrieved 17 July 2016, from <http://www.livemint.com/Opinion/DwiRdnamLz6pAKAEZhKaeL/Mobile-phones-empower-women.html>
- Mathur, S. & Bolia, N. (2016). Worst year ever for MGNREGA 23 % drop in assets created. *The Wire*. 30 April Retrieved 22 October 2016, from <http://thewire.in/32418/worst-year-ever-for-mgnrega-23-drop-in-assets-created/>
- McKinsey & Company. (2012). *Online and Upcoming: The Internet's Impact in India*. McKinsey & Company. Retrieved 21 August 2016, from http://www.mckinsey.com/~media/mckinsey%20offices/india/pdfs/online_and_upcoming_the_internets_impact_on_india.ashx
- Mehra, B. (2002). Bias in Qualitative Research: Voices from an online classroom [Electronic version]. *The Qualitative Report*, 7(1). Retrieved 13 July 2016, from <http://www.nova.edu/ssss/QR/QR7-1/mehra.html>
- Melhem, S., Morrell, C. & Tandon, N. (2009) *Information Communication Technologies for women's Socioeconomic Empowerment*. Retrieved 21 October 2016, from <http://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-8133-5>.
- Miliband, D. (2006). *Social exclusion: The next steps forward*. London: ODPM.
- Ministry of Communications and Information Technology. (2012). *National Telecom Policy, 2012*. New Delhi, India: Ministry of Electronics and Information Technology. 13 June. Retrieved 11 October 2016, from Telecom Regulatory Authority of India: <http://www.trai.gov.in/WriteReadData/userfiles/file/NTP%202012.pdf>
- Ministry of Electronics and Information Technology, Government Of India. (2013). *National Policy on Universal Electronic Accessibility*. New Delhi, India: Ministry of Electronics and Information Technology. Retrieved 24 October 2016, from [http://meity.gov.in/sites/upload_files/dit/files/National%20Policy%20on%20Universal%20Electronics\(1\).pdf](http://meity.gov.in/sites/upload_files/dit/files/National%20Policy%20on%20Universal%20Electronics(1).pdf)
- (2015). *Digital India—Ministry of Electronics and Information Technology*. New Delhi, India: Ministry of Electronics and Information Technology. Retrieved 10 October 2016, from Ministry of Electronics & Information Technology: http://meity.gov.in/sites/upload_files/dit/files/Digital%20India.pdf
- Ministry of Law and Justice (Legislative Department). (2009). *IT Amendment Act, 2008*. New Delhi, India: Government of India. 5 February. Retrieved 10 October 2016, from Ministry of Electronics and Information Technology: http://meity.gov.in/sites/upload_files/dit/files/downloads/itact2000/it_amendment_act2008.pdf
- (2000). *IT Bill 2000*. New Delhi, India: Government of India. 9 June. Retrieved 10 October 2016, from Ministry of Electronics and Information Technology: http://meity.gov.in/sites/upload_files/dit/files/downloads/itact2000/itbill2000.pdf
- Ministry of Rural Development, Government of India, New Delhi. Official website, www.nrega.nic.in
- Mittal, P. & Kaur, A. (2013). E-Governance—A challenge for India. *International Journal of Advanced Research in Computer Engineering & Technology (IJARCET)*, 2(3).
- N, Abhay. (2014). *Poverty in India 2014 Facts, Report and Statistics PDF*. Retrieved 23 July, from <http://indiamicrofinance.com/poverty-in-india-2014-facts-report-pdf.html>
- Nair, R. (2015). *India to have the second-largest Internet user base in the world by December 2015: Report*. Retrieved 2 June 2016, from <http://yourstory.com/2015/11/india-internet-user-base-2015/>
- Narasimhan, N. (2016). *We Tested 18 Government Apps, and Most are not Fully Accessible to the Disabled*. 28 August. Retrieved 11 October 2016, from Factor Daily: <http://factordaily.com/tested-18-government-apps-citizens-found-accessibility-issues-disabled/>
- National e-governance Plan. (2011). *Saavansh: A compendium of mission mode projects under NEGP*. Retrieved 6 August 2016, from https://negp.gov.in/templates/pdfs/Compendium_FINAL_Version_220211.pdf
- National e-governance Plan. (2016). Retrieved 29 July 2016, from https://negp.gov.in/index.php?option=com_content&view=article&id=77&Itemid=464
- National Informatics Centre, Government Of India. (2009).

- Guidelines for Indian Government Websites*. January. Retrieved 11 October 2016, from Guidelines for Indian Government Websites: <http://web.guidelines.gov.in/documents/pdf/webguidelines.pdf>
- Newhagen, J. N. & Bucy, E. P. (2004). *Media Access: Social and Psychological Dimensions of New Technology Use*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Norris, P. (2001). *Digital Divide? Civic Engagement, Information Poverty and the Internet Worldwide*. Retrieved 26 August 2016, from <https://www.hks.harvard.edu/fs/pnorris/Acrobat/Introduction.pdf>
- Open Government Data (OGD) Platform India. (n.d.). *District Wise Community Service Centres (CSC) Roll out and Connectivity*. Retrieved 13 June 2016, from <https://data.gov.in/catalog/district-wise-community-service-centrescsc-roll-out-and-connectivity>
- Pandey, V. (2012). A Short History of India's Political Slogans. *BBC News*. 9, October. Retrieved 30 July 2016, from <http://www.bbc.com/news/world-asia-india-19802394>
- Planning Commission, Government of India. (2008). *Eleventh Five Year Plan 2007-2012*. Retrieved 29 July 2016, from http://planningcommission.gov.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf
- Planning Commission, Government of India. (2011). *Faster, Sustainable and More Inclusive Growth: An approach to the Twelfth Five Year Plan*. Retrieved 29 July 2016, from http://planningcommission.gov.in/plans/planrel/12appdrft/approach_12plan.pdf
- Premsky, M. (2001). Digital Natives, Digital Immigrants [Electronic version]. *On the Horizon*, 9(5). Retrieved 10 July 2016, from <http://www.marcprensky.com/writing/Premsky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- Press Trust of India (2015). *Google to Bring Internet-Beaming Project Loon to India Soon*. Retrieved 23 July 2016, from <http://gadgets.ndtv.com/internet/news/google-to-bring-internet-beaming-project-loon-to-india-soon-779134>
- Rajya Sabha. (2015). Answers Data of Rajya Sabha Questions for Session 239. 15 May. Retrieved 10 October 2016, from Open Government Data (OGD) Platform India: <https://data.gov.in/catalog/answers-data-rajya-sabha-questions-session-239>
- Rao, M. (2015). *Internet Growth, Impacts and Success: What Will India Be Like with 550 Million Users in 2018?* Retrieved 7 July 2016, from <http://yourstory.com/2015/02/internet-india-2018/>
- Rathee, K. (2016). *Telecom Ministry Proposes Revised Structure for Bharatnet Project*. Retrieved 19 July 2016, from http://www.business-standard.com/article/economy-policy/telecom-ministry-proposes-revised-structure-for-bharatnet-project-116062700616_1.html
- Reddi, U.V. (n.d.). *Role of ICTs in Education and Development: Potential, Pitfalls and Challenges*. Retrieved 22 October 2016, from http://www.unesco.org/education/aladin/paldin/pdf/course01/unit_13.pdf
- Salinas, R. (2003). Addressing the digital divide through collection development. *Collection Building*, 22(3), 131–36.
- Sharma, A. (2016). DeITY becomes a new ministry, leg-up for Ravi Shankar Prasad [Electronic version]. *Economic Times*. 19 July. Retrieved 10 October 2016, from <http://economictimes.indiatimes.com/news/economy/policy/deity-becomes-a-new-ministry-leg-up-for-ravi-shankar-prasad/articleshow/53285683.cms>
- Singh, A.M. (2004). *Digital Divide or Digital Exclusion? The Role of Libraries in Bridging The Digital Divide*. Retrieved 21 October 2016, from http://www.liasa.org.za/conferences/conference2004/papers/LIASA_Conference_2004_Mphidi.pdf
- Singh, S. (2016). National Optical Fibre Network project: Fast internet, slow implementation [Electronic version]. *Indian Express*. Retrieved 6 May 2016, from <http://indianexpress.com/article/technology/tech-news-technology/national-optical-fibre-network-project-fast-internet-slow-implementation/>
- Social Exclusion Unit. (2001). *Social Exclusion Unit: Purpose, Work Priorities and Working Methods*. London: SEU.
- Somavia, J. (2009). *Facts on Disability and Descent Work*. Retrieved 12 May 2016, from http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_117143.pdf
- Srinivasan, M. (n.d.). Playing second innings online: an ethnographic study on the Internet Usage among the urban Indian middle class senior citizens of Hyderabad, India. *Global Media Journal*. Retrieved 3 August 2016, from <http://www.globalmediajournal.com/open-access/playing-second-innings-online-an-ethnographic-study-on-the-internet-usage-among-the-urban-indian-middle-class-senior-citizens-of-hyderabad-india.php?aid=64449>
- Stanziola, E., Espol, M., Landoni, L. & Montoya, S. (2006). Hidden negative social effects of poor e-government services design. [Electronic version] *Springer*, 150–161.
- Firstpost staff. (2014). Farewell Kisan: New survey sounds alarm for future farming. *Firstpost*. 11 March. Retrieved 22 October 2016, from <http://www.firstpost.com/india/farewell-kisan-new-survey-sounds-alarm-for-the-future-of-farming-1429501.html>
- Kalyan Parbat. (2005). PC Penetration still bad in India. *The Times News Network*. Retrieved 24 July 2016, from http://articles.economictimes.indiatimes.com/2005-01-11/news/27503960_1_one-pc-pc-technology-india
- The World Intellectual Property Organization. (2013). *Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled*. Retrieved 7 August 2016, from

- http://www.wipo.int/wipolex/en/treaties/text.jsp?file_id=301016
- Thorat, S. & Lee, J. (2006). *Dalits and the Right to Food: Discrimination and Exclusion in Food-Related Government Programmes*. Retrieved 1 August 2016, from <http://www.dalitstudies.org.in/download/wp/0603.pdf>
- UNESCO. (2013). *UNESCO Global Report: Opening New Avenues for Empowerment - ICTs to Access Information and Knowledge for Persons with Disabilities*. Retrieved 29 April 2016, from <http://unesdoc.unesco.org/images/0021/002197/219767e.pdf>
- UNESCO. (2015). *Digital Empowerment: Access to Information and Knowledge using ICTs for Persons with Disabilities*. Retrieved 24 July 2016, from <http://unesdoc.unesco.org/images/0024/002445/244543E.pdf>
- UNESCO. (2015). *The New Delhi Declaration on Inclusive ICTs for Persons with Disabilities: Making Empowerment a Reality*. Retrieved 21 July 2016, from <http://unesdoc.unesco.org/images/0023/002320/232026e.pdf>
- Web Accessibility Initiative. (n.d.). *WAI Guidelines and Techniques*. Retrieved 8 July 2016, from <http://www.w3.org/WAI/guid-tech.html>
- World Bank. (2014). *Internet Access, Yes, but in My Mother Language*. Retrieved 3 June 2016, from <http://www.worldbank.org/en/news/feature/2014/07/03/internet-access-yes-but-in-my-mother-language>
- World Bank. (2015). *Rural Population as a % of Total Population, India*. Retrieved 22 October 2016, from http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?end=2015&locations=IN&start=2015&view=bar&year_high_desc=false
- World Economic Forum. (2015). *Country Highlights*. Retrieved 5 August 2016, from <http://reports.weforum.org/global-information-technology-report-2015/country-highlights/>
- World Wide Web Foundation. (2015). *Women's Rights Online*. Retrieved 23 June 2016, from <http://webfoundation.org/2015/10/new-report-womens-rights-online/>
- WSIS Outcome Documents (2005). *World Summit on the Information Society*. Retrieved 10 June 2016, from <https://www.itu.int/net/wsis/outcome/booklet.pdf>



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India Exclusion Report is a collaborative effort involving institutions and individuals working with a shared notion of social and economic equity, justice and rights. The report seeks to inform public opinion around exclusion and the role of the state; and to influence policy making towards creating a more inclusive, equitable and just society. It is also meant to bring to the fore particular vulnerabilities faced by marginalized communities and groups, their lives and struggles. This endeavour seeks to support public action for the greater inclusion of and justice for the oppressed and the marginalized peoples of India.

India Exclusion Report 2016 presents a critical review of inclusion and exclusion from a range of public goods. These are pensions for older people; digital inclusion; access to agricultural land; and the under-trial prisoners' access to justice. The report seeks to give insights into the following disadvantaged groups: poor in urban India, girls and women with disability in rural India, manual scavengers and urban street children. The report also discusses implications on social sector spending of recent changes in India's fiscal architecture

Cover Photographs

Front: Bhadels, the women porters of Goa

Credit: Sonia Filinto

Back: A very young seller of flowers, on the foot-over bridge of Kaushambhi metro station, New Delhi.

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