

Digital Divide and the Scheduled Tribes in India:

Extent, Consequences, and Challenges

| Saksham Malik
| Nausheen Akhtar



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Discussion Paper

TABLE OF CONTENTS

1. Abstract	03
2. Introduction	04
3. Digital Divide in India	04
4. Digital divide between STs and non-indigenous populations in India	05
5. Consequences of digital exclusion for STs during the pandemic	06
6. Supply and demand reasons behind the divide:	07
7. Conclusion	08
8. Bibliography	09

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June 2022

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ABSTRACT

In India, Scheduled Tribes [STs] face disadvantages in accessing almost all tools required for socio-economic development— including education, healthcare, and information and communications technologies. This disadvantage results in a digital divide between the STs and the non-ST population of the country. The repercussions of the digital divide were evident in the backdrop of the COVID-19 pandemic. Increased internet dependence for healthcare and education meant those without internet access suffered. This discussion paper will analyse the extent of the digital divide between the STs and the non-ST population of the country, the demand and supply reasons behind it, and its consequences for STs. The conclusion will summarise the paper and pave the way for its second part, which will discuss the impact of law and policy on the divide and formulate recommendations for the government.

Keywords: Digital Divide, Scheduled Tribes, ICTs, Digital Technologies, Digital Inclusion.

INTRODUCTION

Messages urging the government to enable online education for children in the region cover walls in a tribal part of Odisha (Pujari, 2020). The people of the state's Mathili Tehsil endure a plight eerily similar to that of Scheduled Tribes [STs] across the country, as the historically disadvantaged section struggles against a novel form of inequality – the digital divide. The Hon'ble Supreme Court of India has recently highlighted the consequences of the digital divide on the education of certain sections of society. In *Action Committee Unaided Recognized Private Schools v. Justice for All & Ors.*, the apex court observed that children's right to education hinges on the ability to afford gadgets and the internet (Rajagopal, 2021). The court discussed the specific implications for remote tribal areas by highlighting the significant dropout rates among children due to a lack of access to information and communication technologies [ICTs].

The term digital divide has been defined incongruously by different authors. The Organisation for Economic Co-operation and Development [OECD] defines the term as:

“The gap between individuals, households, businesses, and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities” (OECD, 2001).

Towards the late 1990s, the divide was defined as the gap between people with access to computers, smartphones, and the internet and those without such access (Van Dijk, 2006). The paper will discuss the divide in greater detail below. Subsequently, it will analyse the digital divide between STs and non-ST populations in India, the consequences of the divide for the former, and the demand and supply reasons behind the same.

DIGITAL DIVIDE IN INDIA

The digital divide is even more evident in India due to the striking economic, social, and cultural differences. Lack of digital literacy, ICT-related skills, infrastructure, and investment in rural areas are a few factors that contribute to this disconnect. The divide takes various forms in the Indian context. There is a significant gap in digital access between urban and rural India. Statistics reveal that only 1.2% of people in rural India have Internet access. In comparison, the proportion jumps to 12% for urban India (Singh, 2010). Further, states with lower average incomes fall behind in ICT facilities compared to high-income states (Agarwal & Panda, 2018). A significant digital divide also exists in the country based on gender. For instance, Indian women are 15% less likely to possess a mobile phone and 33% less likely to use the internet than men (Nikore & Uppadhyay, 2021).

In the current age, access to ICTs can enhance the socio-economic status of people (OECD, 2005). Their socio-economic status subsequently impacts their prospects of gainful employment, entrepreneurship, and access to basic needs like healthcare. Individuals who can operate computers are more likely to access secretarial and administrative jobs (Rao, 2005). Further, entrepreneurship requires access to social and economic capital that is tied to ICTs in the contemporary world. Creating professional networks without access to social media and forums is tedious and restricts the ability to connect with people in different parts of the world.

Accessing capital as investments or loans also requires access to ICTs. The funding process is primarily conducted online and requires an analysis of key performance indicators that need the usage of digital platforms. Loan applications are time-intensive, too, considering that adequate information is often unavailable offline, physical follow-ups are time-consuming, and information on one's credit score is difficult to access (Ozili, 2018). Only 2.47% of rural ST households have ownership of any computing device and are far from reaping the benefits of digital technology (Ahamed & Siddiqui, 2020).

While the constitution does not explicitly provide equitable access to ICTs, the higher judiciary has recognised its importance. The Kerala High Court, in the case of *Faheema Shirin v. the State of Kerala*, recognised that right to internet access forms a part of the right to privacy and right to education under Article 21 of the Constitution (*Faheema Shirin. R.K v. State of Kerala*, 2019). Further, in a case challenging the ban on the internet in the state of Jammu & Kashmir, the apex court held that the internet is an essential medium through which constitutional rights to freedom of speech and expression and to carry on trade or business are exercised (*Anuradha Bhasin v. Union of India*, 2020). Digital inclusion of people, therefore, has the potential to ensure upward mobility of people.

DIGITAL DIVIDE BETWEEN STS AND NON-INDIGENOUS POPULATIONS IN INDIA

Despite constitutional provisions protecting the rights of STs in the country, access to socio-economic development tools has remained scarce for them. Article 46 of the Constitution of India provides that the state shall promote the educational and economic interests of the weaker sections of people, particularly Scheduled Castes and STs. Further, Articles 330, 332, 334, 243D, and 243T provide for the reservation of seats in the Lok Sabha, legislative assemblies, and Panchayats. At the same time, Article 338A established the National Commission for Scheduled Tribes, an agency specifically tasked with monitoring the safeguards.

The STs 104 million comprise 8.6% of the national population. The community has consistently faced disadvantages in accessing education, healthcare, and, in the digital age, ICTs. While reliable statistics on internet access are scarce, the 2011 Census revealed that only 31% of tribal households owned a cell phone. Regarding access to the internet, empirical evidence from regional research studies points to a grim situation (Shah, 2016). Research from villages of the Jhabua district of Madhya Pradesh revealed that only 6% of STs had access to the internet (Sampark Madhya Pradesh, n.d.). A study on ICT use among the tribal population in Barkur, Tamil Nadu, shows that only 42.2% of the sample population of tribals have access to smartphones and mobile internet. Only 48.9% have the knowledge required to use the internet. 95% of the respondents reported never having used e-governance services like applications for government-issued identification documents such as passports, Aadhar cards, and PAN cards (Bathran & Ralph, 2016).

CONSEQUENCES OF DIGITAL EXCLUSION FOR STS DURING THE PANDEMIC

The pandemic has had disastrous implications, especially for children. The pandemic shifted education online. A lack of smartphones and the internet meant children in the tribal-dominated area returned to working odd jobs on farms and construction sites. The media reported that students in the Jhabua district of Madhya Pradesh had to drop out of formal education (Meliwar, 2021). Students from the Gujjar-Bakerwal community of Kashmir were forced to seek work to help out their families instead of continuing their education. Constant internet shutdowns have contributed to the disconnect. Slower speeds and internet blackouts hinder conducting regular online classes. Online classrooms on video platforms generally require 4G connectivity to be functionally stable. However, with perennial internet bans, even the teachers and students have had significant difficulty accessing education facilities (Rajratnam & Yadav, 2021).

In the Dumbi village of rural Jharkhand, most ST families are a part of the daily-wage workforce. School closures in the pandemic supplemented by loss of income and poverty have made access to education a challenge for the children of these families. Their inability to buy mobile devices such as smartphones, laptops, and data packs, coupled with issues such as the lack of awareness of e-learning, have only increased the digital divide in the area (Kumar, 2021).

The situation of tribal health in India has always been grim, and the digital divide further exacerbates the issue. A report by the Expert Committee on Tribal Health to the Ministry of Health and Family Welfare [MoHFW] on tribal health in India points out that the life expectancy of the scheduled tribe population is 3.1 years less than the general population (National Health Systems Resource Centre [NHSRC], n.d.). A preference for alternative medicine in tribal areas coupled with a shortage of modern healthcare human resources and infrastructure elevates the substantial divide between the tribal population and others (Negi & Abdul, 2021). The MoHFW report recommends designing and planning healthcare initiatives for tribal people in consonance with principles focusing on the use of and access to technology and mobile phones, tablets etc., to increase access to knowledge and literacy to bridge the digital divide (NHSRC, n.d.). However, little has been done to bridge this divide. The consequences of the divide on healthcare services for the underprivileged have been evident post the pandemic.

Since the vaccine rollout in India in January 2021, a pressing concern has been the inoculation of disadvantaged groups. With sporadic internet connectivity, sparse mobile networks, and limited daily slots, many in rural areas missed out on vaccine appointments. Without smartphones, it was nearly impossible to keep track of public service vaccination announcements made on portals such as Twitter (Dore, 2021). Another roadblock was the language barrier. The CoWIN platform was available only in English when first launched by the government. The language barrier further widened the segregation between those with internet access and those without, thereby worsening the consequences of the digital divide.

Vaccination statistics among tribal populations present low numbers and dismal results. Out of 192 districts with ST populations greater than 20%, 121 or 63% were lagging the national average of 53% coverage for persons receiving at least one dose of a Covid-19 vaccine by late October 2021 (Esteves & Iqbal, 2021). With rumours about the vaccine causing infertility and death, vaccine hesitancy also posed a challenge in ensuring sizable immunisation numbers (Kalia, 2021; Singh et al., 2021; Tomar, 2021).

SUPPLY AND DEMAND REASONS BEHIND THE DIVIDE:

The digital divide is broadly attributed to demand-side challenges like lack of digital literacy and supply-side challenges like low availability of ICTs. A review of literature from multiple jurisdictions has found that inequalities in individuals' material means, access, skills, and usage of ICTs cause inequalities in access to ICTs (Van Dijk, 2006; Mukherjee et al., 2016; Bathran & Ralph, 2016; Hansdah & Abhilash, 2020; McMahon, 2020). On the supply side, access to the internet and digital technologies for STs appears to be a pipe dream, considering that the government is struggling to provide basic facilities like electricity, clean water, and healthcare in these areas. The latest statistics on infrastructure in tribal areas come from the 2011 Census. Relying on the same, the recent annual report of the Ministry of Tribal Affairs (2021) pointed out that only 51% of total ST households have access to electricity (Population Census, 2011).

Concrete data on digital infrastructure in tribal areas is not available. In the absence of this data, this paper shall focus on the correlation between the ST population, their urban-rural division, and their state-wise composition. The share of the Scheduled Tribe population in urban areas is a meagre 2.4% (Office of the Registrar General & Census Commissioner, 2001). With most of the ST community residing in rural areas, the urban-rural divide in infrastructure impacts STs significantly. Internet infrastructure in India has not optimally developed due to various reasons, including i) low priority to deploying networks in villages with sparse populations or rugged topography, ii) limited investments from Internet Service Providers [ISPs] due to low profitability in rural areas, and iii) lack of local spectrum licensing to encourage micro-entrepreneurs or infrastructure providers (Kumar et al., 2022).

Further, various states with high ST populations, i.e., Madhya Pradesh, Orissa, Rajasthan, West Bengal, Jharkhand, Chhattisgarh, and Gujarat, have had limited success in establishing readiness for internet services (Ministry of Tribal Affairs, n.d.). Internet & Mobile Association of India [IAMAI] conducted a state internet readiness index, measuring various parameters to rank states, including e-infrastructure, IT environment, and government e-services. Of 21 large states, Jharkhand ranked 19th, Madhya Pradesh 18th, Chhattisgarh 17th, Orissa 15th, Rajasthan 13th, and West Bengal 11th. Gujarat was the only state with a high ST population that received a score above 0.70 out of 1.00, ranking 6th. These states, therefore, have yet been unable to achieve commendable internet readiness, contributing to the digital exclusion of STs.

However, the problem is not merely infrastructure since various ST communities lack the money and skills to use modern technologies. Literacy rates of the historically disadvantaged community are low, with some communities even facing rates below 30% (Ministry of Tribal Affairs, 2020; Yadavar, 2018). Further, according to the National Health Survey 2015-16, 5 of every 10 STs in the country fall in the lowest wealth bracket. The Global Multidimensional Poverty Index [GMPI] report reiterated similar findings, stating that five out of six people living in poverty in India are from disadvantaged tribes and castes. STs, at 50.6%, had the highest poverty level (Bhat, 2021). In the face of fundamental demand-side challenges, the problem needs to be tackled by employment, education, and digital training opportunities. (Yadavar, 2018)

The digital divide is exacerbated by not understanding how to traverse the digital ecosystem (Aggarwal, 2019). The utilisation of the benefits of digital technology is far more likely for a person with a few years of schooling (Ahamed & Siddiqui, 2020). A study of NSS data from 2017-2018 analyses the variations in digital literacy across states and union territories of India. STs have the lowest overall digital literacy at the household level at 21% compared to other social groups. Of these, 54% belong

to the urban areas, whereas only 15% of ST households in rural areas are digitally literate (Mothkooor & Mumtaz, 2021).

STs have also historically been disadvantaged when it comes to employment. A large volume of the ST population is involved in agriculture and the informal labour market (Mehta & Singh, 2021). Without significant earning prospects, their disposable income remains low, with a substantial proportion of the income going into buying basic necessities. Data from the National Sample Survey Office [NSSO] and the Periodic Labour Force Survey 2017-18 indicates that urban males between 25-30 years belonging to the ST community have the least average monthly income (Government of India [Gol], 2006; Gol, 2011; Gol 2018). Income figures remain within INR 15,000 even with eighteen years or more of formal education.

In comparison, males of the same age group from the general category earned much more, with their average monthly income figure post-eighteen years of formal education rising upwards of INR 20,000 (Mahambare et al., 2021). Some smaller studies found that the monthly income of the highest-earning ST household of the Tharu tribe was less than INR 5,000, whereas only 8.95% of the households had a monthly income ranging from INR 5,000 to INR 10,000 (Yadav & Sahoo, 2019). STs have an average per capita annual income of INR 16,401, a figure comparatively lower than the average annual income, which amounts to INR 56,048 (Bharti, 2019). Overall, the STs fall behind others in terms of income. An income and expenditure analysis of the Birhor tribes in Chhattisgarh showed that they spent most of their income on basic necessities such as food, household, and healthcare (Sethi, 2017). Therefore, access to computers, mobile phones, and the internet becomes difficult for STs as disposable income available for these amenities remains scarce.

CONCLUSION

The digital divide in India has impacted those in rural areas, those with low incomes, and disadvantaged groups like the STs. The STs in India have faced grim consequences of the digital divide, including limited access to education and health. In the context of the pandemic, it has had disastrous consequences as access to vaccines, healthcare, and formal education hinged on access to ICTs. As discussed above, the reasons pertain to demand and supply-side challenges, including infrastructure and literacy. Limited broadband infrastructure, low-income levels, and low digital literacy have limited the prospects of digital inclusion of STs. If the government wants to achieve its proclaimed 'Digital India' initiative, the digital exclusion of STs needs to receive meaningful attention. The state has an important role to play in the bridging of this divide. The government has attempted to tackle the issue through initiatives like Bharatnet, aiming to increase broadband penetration in India. However, the extent to which laws and policies have improved or worsened the divide needs to be determined. In the next part of the article, the brief will look at India's policy instruments relevant to the digital inclusion of STs. It will also compare the Indian government's approach with other countries with substantial indigenous populations and suggest recommendations for the government.

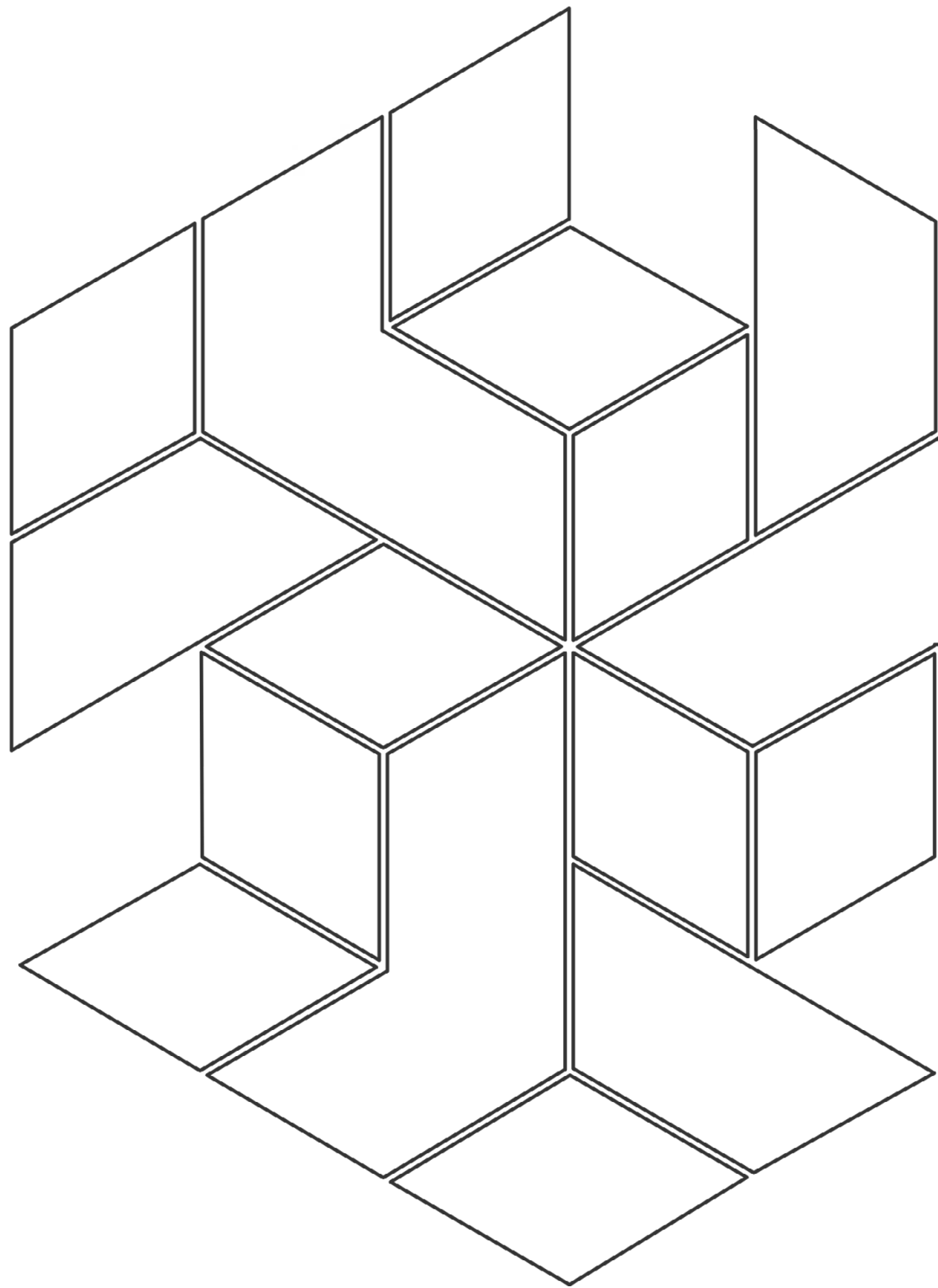
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