

Of Sieges and Shutdowns

How unreliable mobile networks and intentional Internet shutdowns affect the lives of women in Manipur

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Preface

*Oh the mad coupling of hope and force
in which we merged and despaired.*

-- Pablo Neruda, *A Song of Despair*

Manipur lies in northeastern India, bordering Myanmar and the states of Nagaland, Mizoram and Assam. Its capital Imphal is located in the eponymous valley nestled among its hills. The Imphal airport, the sole train station at Jiribam, and scenic and sometimes unmotorable roadways are Manipur's only modes of connectivity with the rest of the world. Hindus, Christians, Meitei Pangals (the name for Manipuri Muslims), Sanamahis and a minuscule number of Buddhists, Sikhs, Jains and atheists live in Manipur¹.

In the 1960s, some local ethnic groups alleged that Manipur's merger with India initiated in 1949² was forced^{3,4,5} and demanded secession from the country⁶. The resultant insurgency, armed conflict and political unrest continue to this day⁷. Numerous underground groups (UGs) as insurgent groups in Manipur are called, operate in the six districts in the Imphal valley and the ten districts in the hills. Some have been designated as proscribed terrorist outfits by the Government of India⁸.

The Armed Forces (Special Powers) Act, 1958 or AFSPA was enforced in 1980 after the Indian government declared Manipur a "disturbed area"⁹ requiring the presence of armed forces. Under the Act, security forces can operate in civilian territories with impunity from civilian law and, *inter alia*, destroy property that is likely to be used by insurgents, shoot to kill, and carry out warrantless searches, detentions and arrests¹⁰. Several non-governmental organisations and government committees have documented human rights violations and abuses of the power granted by AFSPA^{11,12,13}. Decades of military atrocities have caused local populations to resent and mistrust the Indian

¹ India, Office of the Registrar General & Census Commissioner. (n.d.). *Manipur Religion Census 2011*. Retrieved May 12, 2018, from <https://www.census2011.co.in/data/religion/state/14-manipur.html>

² *Manipur Merger Agreement, 1949*. (n.d.). South Asia Terrorism Portal. Retrieved May 12, 2018, from http://www.satp.org/satporgtp/countries/india/states/manipur/documents/papers/manipur_merger_agreement_1949.htm. Archived at https://web.archive.org/web/20170904195821/http://www.satp.org/satporgtp/countries/india/states/manipur/documents/papers/manipur_merger_agreement_1949.htm, September 4, 2017

³ "These Fellows Must Be Eliminated" - *Relentless Violence and Impunity in Manipur, II. Background: Conflict in Manipur*. (Rep.). (2008, September 08). Retrieved May 12, 2018, from Human Rights Watch website: <https://www.hrw.org/reports/2008/india0908/2.htm>

⁴ A safe house for dangerous men. (2007, March 09). *The Economist*. Retrieved May 12, 2018, from <https://www.economist.com/node/8797972>

⁵ Banerjee, P. (2008). Communities, gender and the border: A Legal Narrative on India's North East. In K. Kannabiran & R. Singh (Eds.), *Challenging The Rules(s) of Law: Colonialism, Criminology and Human Rights in India* (pp. 264). SAGE Publications. ISBN 9780761936657.

⁶ *Supra* note 3.

⁷ *Supra* note 3.

⁸ *Terrorist/ Insurgent Groups - Manipur (Data Updated till November 5, 2017)*. (n.d.). South Asia Terrorism Portal. Retrieved May 12, 2018, from http://www.satp.org/satporgtp/countries/india/states/manipur/terrorist_outfits/index.html. Archived November 13, 2017, at

https://web.archive.org/web/20171113203553/http://www.satp.org/satporgtp/countries/india/states/manipur/terrorist_outfits/index.html

⁹ Areas declared by the state or central government via a public notification to be "in such a disturbed or dangerous condition that the use of armed forces in aid of the civil powers is necessary." Armed Forces (Special Powers) Act, 1958, sec. 3 ("Power to Declare Areas to be Disturbed Areas").

¹⁰ *Ibid*, sec. 4(a), 4(c), 4(d), sec.6.

¹¹ "These Fellows Must Be Eliminated" - *Relentless Violence and Impunity in Manipur*. (Rep.). (2008, September 08). Retrieved May 12, 2018, from Human Rights Watch website:

<https://www.hrw.org/report/2008/09/29/these-fellows-must-be-eliminated/relentless-violence-and-impunity-manipur>

¹² *The Armed Forces (Special Powers) Act, 1958 in Manipur and other States of the Northeast of India: Sanctioning repression in violation of India's human rights obligations*. (Rep.). (2011, August 18). Retrieved March 1, 2018, from www.refworld.org/pdfid/4e5630622.pdf [PDF]. Redress, Asian Human Rights Commission, and Human Rights Alert.

state and its security forces, feeding back into the cycle of violent conflict and the feeling of alienation. The most iconic protest for the repeal of AFSPA has been the 16-year hunger strike of Irom Sharmila, during which she was force-fed through a nasal tube. The Indian armed forces for their part maintain that they are doing their job in exacting conditions and that AFSPA is an “enabling law” for their operations against insurgents and terrorists¹⁴¹⁵.

Compounding the weary whirlpool of disarray and violence is long-standing ethnic conflict among the Meitei, Naga and Kuki groups¹⁶¹⁷. Meiteis are concentrated in the valley; Nagas and Kukis mainly reside in the hills¹⁸. Broadly, Meitei insurgent groups demand secession from India; Naga ones a sovereign Nagalim comprising other Naga-majority territories in India and Burma; and Kuki insurgents in India and Burma, a separate Kukiland¹⁹²⁰. As journalist Anubha Bhonsle puts it in her compelling book entitled *Mother, Where is My Country?*, “everything is in a state of violent, tragic flux” in Manipur.

Manipur has the third lowest per capita income in the country²¹, and limited avenues for employment and economic growth. Infrastructure such as telephone service, railways, the Internet, and mobile communications, has historically arrived in the region much later than the rest of India. The rapid penetration of wireless Internet in Manipur since 2016²², coupled with the availability of affordable mobile handsets in India has opened new avenues of business, income and education for entrepreneurs, professionals and students. Several women in Manipur who run small and medium enterprises have been leveraging the availability of the Internet for their business operations, such as seeking microloans, procuring material, and selling their goods online. Activists working on issues of human rights and gender-based violence rely on the Internet for their activities. Awareness of digital rights, digital security and online privacy among citizens is little. Intentional Internet shutdowns²³ and network disruptions have been detrimental to their lives, causing them financial losses, curbing their human rights, and disempowering them.

Of Sieges and Shutdowns draws upon 16 qualitative interviews and as many first-person accounts to unravel and document the impact of unreliable mobile network connectivity and network disruptions on the lives and livelihoods of women in Manipur. We invited women entrepreneurs and activists working in different areas of women’s empowerment to participate in this study via interviews held in person and a two-day exploratory workshop. This preliminary study is an attempt

¹³ Report of the Justice Hegde Commission. (Rep.). (2013, March 30). Retrieved March 1, 2018, from <http://www.hrln.org/hrln/criminal-justice/reports/1501-santosh-hegde-commission-submits-report-on-manipur-extra-judicial-killings.html>

¹⁴ Time has not come for any rethink on AFSPA: Army chief Bipin Rawat. (2018, January 28). *PTI*. Retrieved May 13, 2018, from <https://www.livemint.com/Politics/vwdwZogOWb9ltfKFyDLpvN/Time-has-not-come-for-any-rethink-on-AFSPA-Army-chief-Bipin.html>

¹⁵ Jassal, R.S. (2011, December 13). An Argument In Favour Of AFSPA. *Imphal Free Press*. Retrieved May 13, 2018, from <http://www.ifp.co.in/page/items/3440/3440-an-argument-in-favour-of-afspa>

¹⁶ *Supra* note 4.

¹⁷ The mayhem in Manipur. (2007, March 1). *The Economist*. Retrieved May 12, 2018, from <https://www.economist.com/node/8786297>

¹⁸ *Supra* note 1.

¹⁹ Upadhyay, R. (2005, January 3). Manipur - In a strange whirlpool of cross-current insurgency. *South Asia Analysis Group*, (Paper No. 1210). Retrieved May 12, 2018, from <https://web.archive.org/web/20120308213202/http://southasiaanalysis.org/papers13/paper1210.html>. Archived March 8, 2012, at <http://southasiaanalysis.org/papers13/paper1210.html>

²⁰ *Supra* note 3.

²¹ India, Ministry of Statistics & Program Implementation. (2017, August 3). *Per Capita Income*. Retrieved May 12, 2018, from Press Information Bureau website: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=169546>

²² Government of India, Ministry of Communications, Department of Telecommunications. (n.d.). *Lok Sabha Starred Question No. 83, To be answered on 8th February, 2017, Internet Penetration*. Retrieved January 29, 2018, from <http://164.100.47.190/loksabhaquestions/annex/11/AS83.pdf> [PDF]

²³ *India: 20 Internet Shutdowns in 2017, Protecting Free Expression Online Serves Public Interest*. (2017, June 15). Human Rights Watch. Retrieved January 29, 2018, from <https://www.hrw.org/news/2017/06/15/india-20-internet-shutdowns-2017>

to probe their use of information communication technologies (ICTs) in professional and everyday contexts, the impact of Internet access issues on their lives, and their experiences of intentional Internet shutdowns. The Bachchao Project conducted this study in late 2017 with the support of the Integrated Rural Development Service Organisation (IRDSO).

Few studies give the reader a deep, intersectional and comprehensive understanding of the nature and impact of intentional Internet shutdowns and lack of access to reliable mobile networks in India's conflict-strained geographies. The northeastern region has traditionally received little attention from Indian mainstream media, creating an information black hole of sorts²⁴. The strongest motivation for undertaking *Of Sieges and Shutdowns* was addressing the lack of information and human stories from the ground in Manipur. The region's absence from national consciousness compelled us to delve into numerous social, political, economic and cultural complexities to enable the reader to view our findings in Manipur's unique context.

We present our findings over three parts in this report:

- Part 1 delineates how the surveyed women use mobile phones and the Internet at the workplace, in everyday life, and in disaster situations.
- Part 2 shines a light on how the low quality of service and unreliability of networks pose a barrier to their access to the Internet and to wireless networks (voice and SMS), negatively affecting their lives.
- In Part 3, their experiences of intentional Internet shutdowns in Manipur are documented.

Choice of narrative style: Connecting and contextualising different responses given by the same interviewee by assigning them a pseudonym would have yielded a richer and more humanised narrative than the one in this report. However, it could also potentially make it possible to connect data points and deanonymise respondents. In the interest of privacy and safety of everyone involved, we opted for the present narrative style.

This report is available at <http://thebachchaoproject.org/of-sieges-and-shutdowns>



*Ima Keithel in Imphal city. The name literally means "Mother's Market".
(Wikimedia Commons/ PP Yoonus/ CC BY-SA 3.0)*

²⁴ Ninan, S. (2009, August 30). Skewed Coverage. *The Hindu*. Retrieved May 12, 2018, from <http://www.thehindu.com/thehindu/mag/2009/08/30/stories/2009083050140300.htm>

About The Bachchao Project

The **Bachchao Project** is a techno-feminist collective that undertakes community-centric efforts to develop and support open source technologies and technical frameworks with the goals of mitigating gender-based violence and working towards equal rights for women, LGBTQIA people, and gender non-conforming groups. We conduct research and advocacy in all the above areas and guide communities in determining appropriate technological interventions for themselves.

About IRDSO

Integrated Rural Development Service Organisation (IRDSO) is a non-political, non-sectarian, non-profit-making and non-governmental voluntary organisation working for the cause of women. IRDSO works without regard for caste, race, community, sex and religion. It is a platform for preparing and mainstreaming communities, especially women, to respond to developmental initiatives for the struggle for survival – economically, socially and environmentally – so that the deprived class of the community enjoys the fruit of human dignity, resulting in a transformation of their lives and the environment in which they live.

IRDSO is a women-oriented organisation. It emphasises empowering women in terms of their economic, political, educational and cultural rights to help them shape their own destinies. It endeavours to improve the status of women and support them in their struggle for existence against different forms of violence and atrocities.

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Glossary

AFSPA	Armed Forces (Special Powers) Act, 1958
BSNL	Bharat Sanchar Nigam Limited. State-owned telecommunications company.
BTS	Base Transceiver Station, also called “Base Station” or “mobile tower”. It enables communication between a mobile device and network.
DoT	Department of Telecommunications. A department of the Ministry of Communications, Government of India.
FCRA	Foreign Contribution (Regulation) Act, 2010. A law that regulates the inflow and utilisation of funds such as donations and monetary grants sent/ awarded from outside India to entities located in India.
<i>Gram panchayat</i>	Formalised local self-governance bodies in rural India. Literally means “village council”.
ICT	Information communication technology
ILP	Inner Line Permit. A travel document issued by the Indian government for Indian nationals to gain entry into certain states inhabited by indigenous populations.
IRDSO	Integrated Rural Development Service Organisation
ISP	Internet service provider
MLA	Member of the Legislative Assembly
MP	Member of Parliament
QoS	Quality of Service. Overall performance of a network, especially as experienced by its users.
TRAI	Telecom Regulatory Authority of India. An autonomous regulator of the telecommunications sector, established by the Indian government in 1997.
Throttling	“Network bandwidth usage throttling”, “bandwidth throttling” or simply “throttling” is a measure to limit the amount of bandwidth available to each user in a communication network. It is used for several purposes including: To reduce or prevent network congestion; prevent server crashes; regulate network traffic; and increase or decrease the speed of an Internet service.
UG	Underground groups. Umbrella term for insurgent groups operating in Manipur.
UNC	United Naga Council. A collective of people of Naga ethnicity in Manipur.

Challenges

In view of the socio-political situation in Manipur, we were aware of the local peoples' mistrust of individuals and organisations from the so-called "mainland India". To be able to meet relevant respondents and have candid interactions despite a lack of prior acquaintance with them, we identified and invited potential respondents through a circle of trust. We are conscious of the fact that this method has introduced a selection bias in the sample we surveyed. However, we treat selection bias as the lesser drawback compared with the possibility of getting reserved or inconclusive responses. Despite the selection bias, we interviewed respondents from different age brackets, ethnic groups, religions, vocations, and districts in Manipur.

Some of our respondents suspected that they were under surveillance by one or more of the forces at play in the state. The low awareness of digital security among activists thus posed another challenge. We used electronic communications minimally while coordinating this study with them, relying on a combination of offline and online communication strategies.

The official language of Manipur is Meiteilon, also known as Manipuri. The surveyed group also spoke other local languages such as Khoibu and Thadou. The only spoken language common between the respondents and the research team was English. The phrasing of the survey questionnaire has been kept simple in order to accommodate those who were acquainted but not necessarily fluent in the English language. We could not arrange for a professional interpreter due to various constraints. We worked around this issue by paying one of the respondents to interpret and translate for those who could not interact with us in English.

Conducting a literature survey was difficult because of the sheer lack of scholarship, academic or otherwise, in the context of Manipur on the topic of Internet shutdowns and women's experiences of living with the unreliability of wireless communication networks. Either credible references written in English on the topic do not exist or they have not been published online as research papers, scholarly texts and books. Because we do not possess knowledge of the local languages, we could not search for and peruse literature written in them. It is another indicator of the information black hole in the northeastern region.

There is a lack of reliable and publicly available data about the use of ICTs in Manipur. The state has been bundled with five other states in the "North East" category in datasets and documents published by the Ministry of Communications and the TRAI. The absence of reliable information and granularity makes it near-impossible to analyse, corroborate or discern any usable findings from the data.

Ethical considerations

Planning and executing this project while staying moored to ethics presented some challenges because of the numerous complexities of the situation in Manipur:

Framing our interactions, research questions and survey instrument: While ethical considerations forbid the slanting of questions in any research pursuit, we were exceptionally careful about maintaining the neutrality of our questionnaire and our interactions (both planned and casual) with the respondents of the survey. As outsiders, we needed to strike a balance between being aware of local sensibilities and objectively recording our findings. This is reflected in the difference between our research questions ([Annex 3](#)) and the survey instrument ([Annex 7](#)). External researchers and partner organisations peer-reviewed the design of the two-day interactive workshop and the survey instrument before we embarked on the study.

Diversifying the survey sample: The ethnic, religious, linguistic, cultural, and geographic diversity in Manipur, and the conflict between some of these groups, necessitated that we bring as many different and diverse voices to the table as possible. We invited respondents from diverse communities and paid for their travel expenses to ensure they do not drop out because of prohibitive travel costs.

Purpose and timing of the study: A study such as this is deeply political in nature and should be paired with a strong grasp of different local contexts and sensibilities. It would have been ideal for a team from the state of Manipur to have designed and conducted this project. However, we realised during the course of our previous work in the region that the capacity for it does not exist locally and needs to be built before such a project can be initiated. On the other hand, the lack of substantial, verifiable and documented information on the topic from the state presented a need too pressing to wait for learning and capacity-building to happen. In keeping with the ongoing emphasis on digital empowerment in India, we decided to conduct this research when the opportunity arose.

Security and privacy concerns: Some of the views documented in this study could pose risks to the respondents' security and privacy. We have, therefore, taken measures such as redacting personally identifiable information from responses and anonymising direct quotes. All participants were required to sign a consent form ([Annex 1: Proforma consent form](#)) at the beginning of the workshop as a prerequisite to attend the workshop. We explained the contents of the consent form and the protocol ([Annex 2: Protocol for the workshop](#)) at the outset and urged them to put forth their queries to ensure that we had indeed obtained "informed" consent. We also selected the venue where we met with the respondents in the interest of protecting their security and privacy and ours.

Findings

Part 1: Use of the Internet and mobile devices

The 16 respondents in the surveyed group had different levels of acquaintance and skills with using the Internet, laptop and desktop computers, and mobile devices.

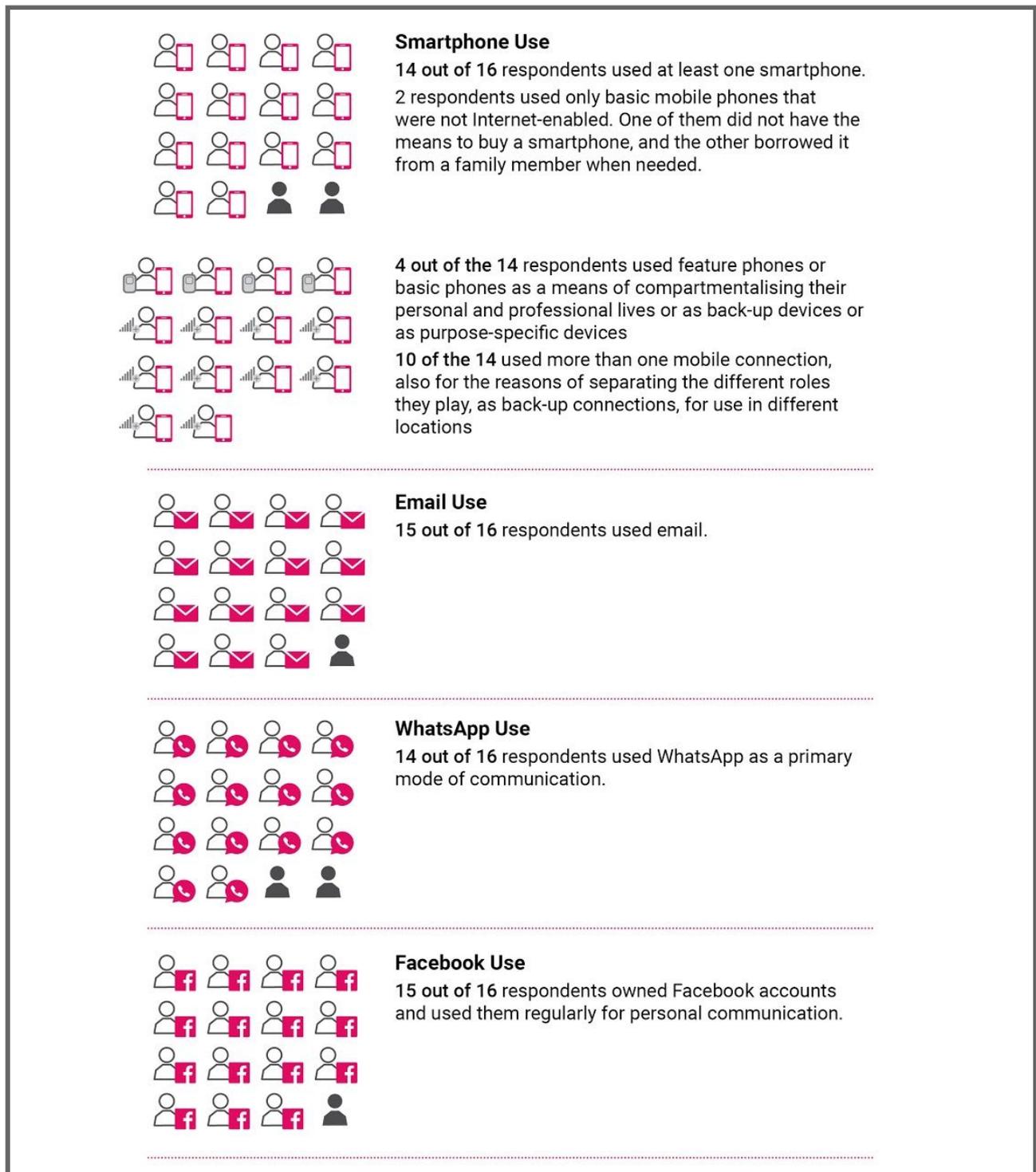


Image 1. Use of email, WhatsApp, Facebook and mobile phones among the surveyed group

1. Everyday use

1.1. Activism and public mobilisation

WhatsApp and Facebook came across as the primary modes of communication for activism and mobilisation among the respondents and their professional circles. In response to a survey question about their greatest personal achievement in learning to use technology, five respondents referred to their use WhatsApp and/ or Facebook, quite likely because it involved a learning curve for them.

An activist who also worked in an NGO said that her greatest personal achievement in terms of learning to use technology was, *“getting blocked on Facebook.”* She referred to an incident when she engaged in an argument on Facebook with other users over some social and political issues in Manipur. As a result, the users who disagreed with her stand blocked her on Facebook.

Another activist and NGO worker elucidated that WhatsApp was a means of communication with colleagues who either do not have access to email or do not have the skills to use it.

“...We do activity planning over WhatsApp. This is done because some staff [members] can't use email, so WhatsApp is a better mode of communication...”

One respondent stated that being able to use the WhatsApp group of her workplace extensively for professional purposes counted as an achievement for her in terms of learning to use technology in everyday life.

Other responses:

“I use Facebook, WhatsApp. I am also a Facebook activist, I think. I use it to share information about crimes against children, for awareness. I also posted against the groups which broke the law. Facebook awareness is also one of the biggest achievement.”

“...We have a [redacted name of helpline] group on WhatsApp.”

“[I am] proud of using the Internet and [feel] very happy when women come together to conduct special events and we can create recruitment through WhatsApp. I feel happy sharing updates.”

1.1.1. Awareness of surveillance

A respondent who used a basic mobile phone that was not Internet-enabled said that she preferred to not conduct financial transactions online and was generally conscious of her digital footprint,

“I limit my digital transactions and activities [to what is unavoidable] because of surveillance and phone tapping. My husband and colleagues also do that...”

Nevertheless, she and her husband shared a smartphone to shoot photos and to communicate on WhatsApp with other human rights activists and their own extended families.

WhatsApp, Facebook and other centralised, walled-garden services are in use extensively among the respondents despite their knowledge that some local activists are under surveillance. This is possibly **an indication of the need for greater awareness of alternative platforms and services and digital security practices among activists in the region.**

1.2. Leisure and entertainment

"The happiest things I do [via the Internet] is [that] whenever I miss [watching an episode of] a TV serial, I use the Internet to watch it, especially Splitsvilla [TV show]. I have downloaded TV apps like Colors, MTV and all. This is the best use of technology."

(Also see Part 2: Impact of low and unreliable QoS on the surveyed group > [2.3 Leisure and entertainment](#).)

1.3. Research and education

The reference material a researcher needed for her dissertation on women's studies was not available at the local public library, university or other avenues, which prompted her to search for it on Archive.org. She adds,

"I also use YouTube to get video which are helpful for adolescents, like menstrual hygiene. I think [that] instead of lecturing, I am very good in downloading PDF [files]. I download the Constitution and [its] Articles. I also download other apps for entrance exams like UPSC and SSC²⁵. I gain knowledge through the Internet, I say."

Manipuri women commonly practise weaving, dyeing, embroidery, sewing, block printing and other traditional textile crafts as professional activities. One respondent in her early twenties said that she watches videos on YouTube to expand her knowledge of handmade embroidery and to learn to use new machines. **Both examples illustrate that young women actively use the Internet for gaining knowledge, nurturing their ambitions and learning the skills that contribute to their livelihood.**

1.4. Personal use

Personal use of the Internet in the surveyed group was limited to financial transactions, banking and communication with family and social circles.

*"I use lots of technologies like FB [Facebook]. I don't update much but I use it to get information. I am also part of **WhatsApp Groups**. I like that we are able to connect to lost people like relatives and friends. One of the most exciting things was when I could create an account and connect with people I met when I travelled out [of the country or state]. I was able to do a **video call** with my children and family members."*

*"I am a **Facebook Group administrator**. I am also a **WhatsApp Group administrator**... I had lost touch in [sic] almost 25 years with friends and recently reconnected and even we had a get-together. We have been meeting in [sic] 2 years."*

*"I do transactions through **Rupay**. I don't have [an account on] PayTM. I do **banking through phone** for [redacted names of banks]. [For] Organisation[al] accounts, we don't do online transactions."*

*"I use WhatsApp, Facebook and **email**. But, the tough things and software my brother and my son take care [of]. I don't do technical things, though."*

1.5. Professional use

Professional use of the Internet among the surveyed group covered a larger range of activities than its personal use. All respondents who owned a smartphone were a part of at least one WhatsApp group meant for work-related communication, planning and coordinating the activities of their organisations and so on.

²⁵ UPSC and SSC examinations are public competitive tests for recruitment into different government services in India.

An entrepreneur used the Truecaller app to avoid answering extortion calls from “underground groups” (UGs), which is an umbrella term for insurgent outfits in Manipur. UGs are known to extort money from local citizens to fund their activities.

*“I talk to managerial staff of my organisation on the **phone and WhatsApp**... I use **Truecaller**. Until and unless it shows a name I do not pick up [answer] calls. Anonymous numbers can be from underground and there can be threats. Hence, we establish filters for calls.”*

The Internet was also used for **troubleshooting and remote supervision of business**:

*“Whenever I have any technical problems I am using **Google to search** for solutions. I am also using [redacted name of **enterprise software**] for my company, because it is very difficult for me to operate three different divisions [otherwise]... With this I can find out who [in the factory] is doing what.”*

Another entrepreneur communicated with her clients via **SMS groups**. As an activist, she worked on mitigation of domestic violence and rescue of victims in Manipur, relying on SMS groups to serve different purposes – support for victims of domestic abuse, collective interventions against incidents of domestic violence, and rural outreach.

*“I use **Microsoft Excel and Word** for my work... For addressing violence against women, we use SMS groups, because Internet does not work well in these areas. This is good for collective action... Phone can be the means of sharing information and to work with each other. I also use **SMS groups** with my work [contacts]. SMS is not very difficult to operate. It is very easy to use for rural groups.”*

One of the respondents searches online for public notifications issued by the government and information published on government websites. She also files documents for her organisation via the Internet.

*“I use Facebook, of course. But I use **Google to search** for notices. I don’t know if its an achievement or learning from the Internet... I look for public information from the government and the ministry.”*

Other uses of the Internet, mobile devices and PCs involved:

- Cloud storage (**Dropbox, Google Drive**)
- Accounting software (**Tally, Enterprise Resource Planning or ERP**)
- Productivity and office software (**Microsoft Word, Excel and others**)
- Online outreach and communication (**WhatsApp, Facebook, Gmail, other webmail, phone calls**)
 - VoIP (**Google Hangouts, Skype**)
- Remote desktop access and collaboration (**TeamViewer**)
- Survey software (**NDLS**)

“I use a lot of Internet. Due to Google, Facebook, we create a new project page [for professional activities] and we post all our updates.”

*“...Company mail is hosted on Gmail... TeamViewer is used for calls, NDLS for taking surveys and [Google] Hangouts are used to communicate with partners in [redacted name of city]... We also use **tablets for data collection**. The data is collected offline and then uploaded online. The data we collect are health data from HIV-positive people. We also share schemes of the government to [sic] the field workers through the tablet application. We also use the tablets to collect photographs and voice recording for status reports. Each of these tablets is connected to separate servers through passwords. One can’t use them to do phone calls or search or install other applications.”*

“Phone is used very less in our organisation [for making calls]. We use Dropbox to keep all [our] documents so [that] we can access [our] work on the go. I use Dropbox to store some important documents.”

“Most coordination happens through phone. Sometimes WhatsApp is also used and email to communicate with funders. We also use an ERP for accounting but can’t use it regularly because of low Internet speeds.”

One of the respondents was a professional weaver who sold her goods at local markets and *melas* (shopping fairs). Her use of her feature phone, which was not Internet-enabled, was limited to making and receiving phone calls. She did not own a laptop.

1.6. The timeline of technology

To answer the research question about how the respondents’ access to the Internet and communication devices has changed over the past 40 years, we asked them to collectively draw a timeline based on their personal recollections of starting to use different kinds of ICTs and devices in Manipur. The exercise, conducted during the two-day interactive workshop, was prompted by the dearth of academic literature and reliable evidence about women’s access to ICTs in Manipur and of publicly-accessible government data about Internet and mobile connections specific to the state. Every person in the group was encouraged to share their first memory and its corresponding year of using or witnessing someone else in their community use a telephone, basic mobile phone, smartphone, laptop, email, the Internet, social media, and so on.

The aggregated timeline (Refer to *Image 2. Infographic depicting an anonymised summary of the collective timeline drawn by the survey respondents in 2017*) serves as a bird’s eye view of the region’s changing telecommunications landscape over the past four to five decades. Telecommunications facilities and infrastructure arrived in Manipur much later than in many parts of ‘mainland’ India. The timeline sheds light on the relative “access deficit” in Manipur, especially among women, compared with the rest of the country.

The exercise also spurred the group to collectively and individually reflect on how their own access to ICTs had changed over time. As the group had not been told about this exercise before it actually started, we recognise that their recollections could be imperfect or inaccurate. The “timeline of technology” only gives the reader a general and overarching idea in the absence of other evidence. Our findings from this activity and a visualisation of the different entries on the timeline will be published separately.

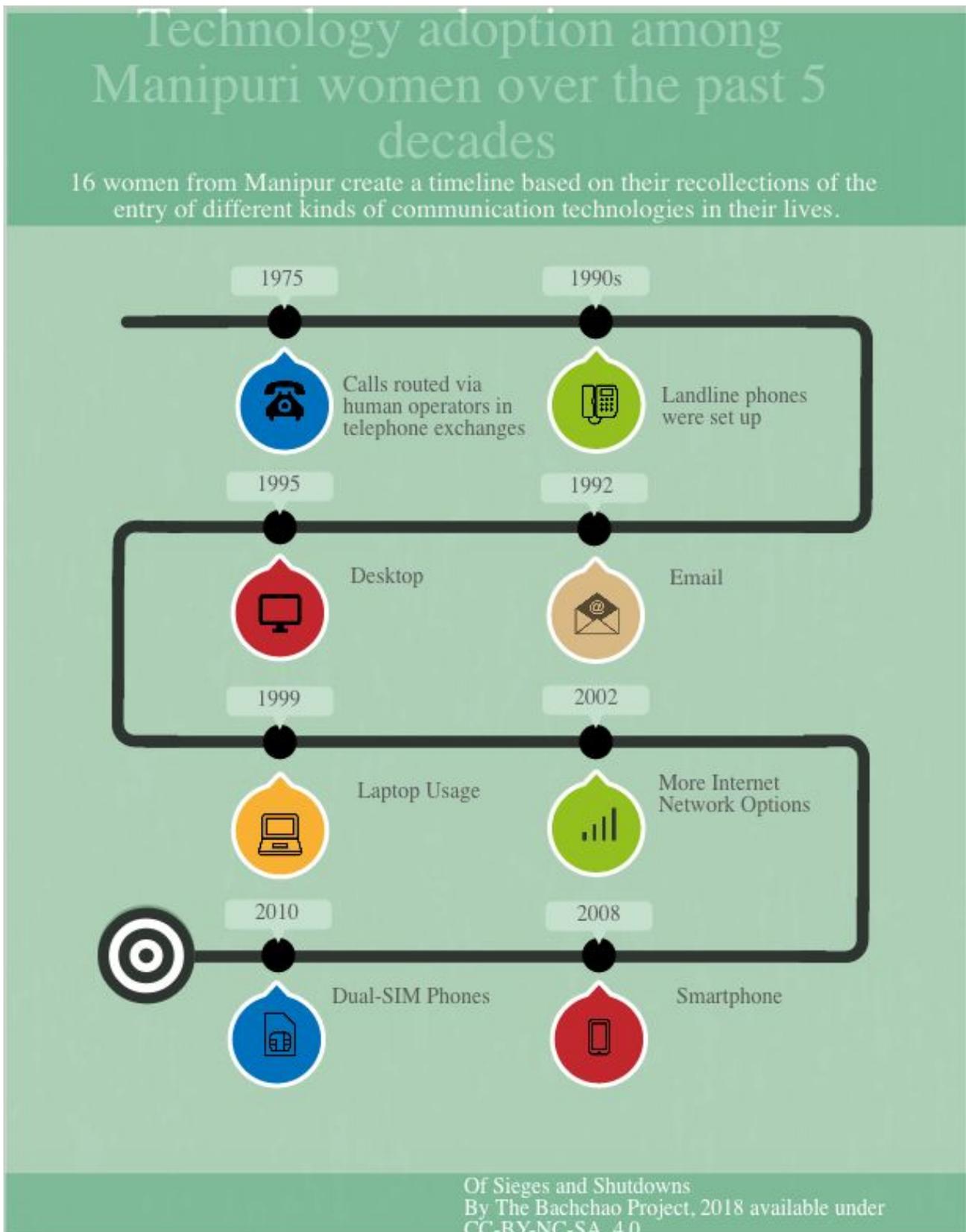


Image 2. Infographic depicting an anonymised summary of the collective timeline drawn by the survey respondents in 2017

2. Stories of resistance

Use of the Internet and mobile phone for activism

2.1. Protest against the Phaknung gangrape, Imphal, 2017

Two minor girls were gangraped on April 14, 2017 by two men and five juveniles in Phaknung, a neighbourhood in the centre of Imphal²⁶. The incident came to be known as the Phaknung gangrape. Public outcry against the incident manifested itself in a protest rally where reportedly thousands of people marched in Imphal²⁷²⁸²⁹. The protestors comprised women's groups, student outfits, civil society organisations, and public-spirited citizens³⁰. One respondent told us that mobilisation for the protests against the incident happened via SMS and the Internet:

"[It was] One of the biggest rallies in Imphal. I was a part of it. The case is under trial now... The good part was that everyone was ready [eager] to participate in the rallies and demonstrations. Whatever information we got we kept sharing it and posting it on FB [Facebook], FB messenger and WhatsApp."

2.2. Protests against fake police encounter in Imphal, 2009

"Fake encounter" is a euphemism in India for shootouts staged by the police or the security forces to carry out extrajudicial executions of terrorists, criminals, suspects, or innocent people³¹. The incident is often covered up by terming it an act of self-defence by uniformed personnel³². The National Human Rights Commission registered 555 cases of allegedly fake encounters in India between 2009 and 2013 of which 62 happened in Manipur³³³⁴. One such incident happened on the morning of July 23, 2009 in a market in Imphal when 22-year-old former militant Chungkham Sanjit was shot dead by the police³⁵³⁶³⁷. According to news reports and covertly captured photographs

²⁶ Charges framed in Phaknung rape case. (2018, February 21). *The Sangai Express*. Retrieved May 12, 2018, from <http://www.thesangaiexpress.com/charges-framed-phaknung-rape-case>

²⁷ Gopinathan, S. (2018, April 26). The Gangrape of Two Minor Girls in Imphal is Throwing Up Some Unique Demands. *The Ladies Finger*. Retrieved May 12, 2018, from <http://theladiesfinger.com/manipur-gangrape-minor-girl>

²⁸ Rally to protest rape of students - Public outcry in Imphal against assault. (2018, April 27). *The Telegraph*. Retrieved May 12, 2018, from https://www.telegraphindia.com/1170428/jsp/northeast/story_148705.jsp

²⁹ Thousands protest against gang-rape in Manipur. (2018, April 27). *Nagaland Post*. Retrieved May 12, 2018, from

<http://www.nagalandpost.com/channelnews/Regional/RegionalNews.aspx?news=TkVXUzEwMDEzMzYyMg%3D%3D>

³⁰ *Ibid.*

³¹ Campbell, B., & Brenner, A. D. (2003). *Death Squads in Global Perspective: Murder with Deniability*. Palgrave Macmillan. pp. 265-. ISBN 9781403960948

³² Shah, N., Sandler, L. H., Ganguly, M., & Pearson, E. (2009). *Broken system: Dysfunction, abuse, and impunity in the Indian police*. New York, NY: Human Rights Watch. ISBN 9781564325181.

³³ Government of India, Ministry of Home Affairs, Lok Sabha Unstarred Question No. 1368, To be answered on 5th March 2013. Retrieved May 6, 2018, from <http://mha.gov.in/MHA1/Par2017/pdfs/par2013-pdfs/ls-050313/LSQ.1368.Eng.pdf> [PDF]. Archived May 6, 2018, at

<https://web.archive.org/web/20180506190711/https://mha.gov.in/MHA1/Par2017/pdfs/par2013-pdfs/ls-050313/LSQ.1368.Eng.pdf> [PDF]. "...alleged fake encounters by police, defence and para-military forces during the period 2009-10 to 2012-13 (as on 15.2.13)..."

³⁴ Annex Referred to in Reply to Part (a) of The Lok Sabha Unstarred Question No. 1368 for 5.3.2013. Retrieved May 6, 2018, from <https://web.archive.org/web/20130712183805/http://164.100.47.132/Annexure/lsq15/13/au1368.htm>, Archived at <http://164.100.47.132/Annexure/lsq15/13/au1368.htm>

³⁵ Karnad R., & Jajo G. (2016, July 21). Confessions of a killer policeman. *The Guardian*. Retrieved May 12, 2018, from <https://www.theguardian.com/world/2016/jul/21/confessions-of-a-killer-policeman-india-manipur>

³⁶ Sengupta, S. (2016, January 27). Manipur cop confesses to killing ex-PLA terrorist Sanjit in fake encounter in 2009. *News 18*. Retrieved May 12, 2018, from

<https://www.news18.com/news/india/manipur-cop-confesses-to-killing-ex-pla-terrorist-meitei-in-fake-encounter-in-2009-1195372.html>

³⁷ Ambast, S. (2016, February 12). Unexplained Deaths: 'Fake Encounters' in Manipur. *The Diplomat*. Retrieved May 12, 2018, from <https://thediplomat.com/2016/02/unexplained-deaths-fake-encounters-in-manipur>

that were later published in the news media³⁸, he was unarmed. A stray bullet killed one Thokchom Rabina who was five months pregnant³⁹.

One of the respondents spoke about the public outcry that ensued and the methods adopted by the government to quell public anger:

“Many people were illegally detained at that time for protesting against the fake encounter. Many protests happened in different parts of the state. The leaders of the protests, regardless of whether they were men or women, were arrested. The government was trying to stem the protests. [Redacted] was arrested at the airport because he was travelling with some photographs. We started an online [redacted] for [redacted] mobilisation against the illegal detentions. The effect was that one independent fact-finding committee from Delhi came [to Manipur]. [It] Consisted of [a] retired judge, retired policemen, et cetera. The fake encounter incident and subsequent arrests were not the only reasons for the visit of the committee but the online mobilisation spurred it... Our [the respondent’s, her husband’s and her colleagues’] phones were tapped and we found out, so we kept phone conversations to the bare minimum and used code words. Some of our colleagues were jailed and they would call us from prison using the jailor’s mobile phone or mobiles of other prison staff. We would not answer those calls but sometimes we had to answer because our colleagues in prison might have [had] something important to communicate.”

The extrajudicial killings of Sanjit and Rabina, along with those of many others in Manipur, are under formal investigation and the subject of a public interest litigation (PIL) in the Supreme Court⁴⁰⁴¹.

2.3. Demand for ILP, Imphal, 2015

Violent, prolonged and widespread agitations broke out in Manipur in 2015 as some groups supported the introduction of an Inner Line Permit (ILP)⁴²⁴³ regime and some others opposed it. The ILP is a travel document issued by the Indian government for Indian nationals to gain entry into certain states inhabited by indigenous populations⁴⁴.

The campaign supporting the introduction of the ILP system was the most fierce in the Imphal valley where it was spearheaded by a collective of Meitei organisations and groups, called the Joint Committee on Inner Line Permit System (JCILPS)⁴⁵. The reason for the demand and the ensuing public unrest, as stated by the JCILPS, was the “uncontrolled influx” of “outsider populations” that threatened the “identity, culture, traditional values and livelihood of the indigenous peoples”⁴⁶.

³⁸ Chamberlain, G. (2009, August 6). Tehelka news magazine pictures point to Indian police killing unarmed man. *The Guardian*. Retrieved May 12, 2018, from

<https://www.theguardian.com/world/2009/aug/06/tehelka-expose-police-fake-encounter>

³⁹ *Supra* note 35.

⁴⁰ Laithangbam, I. (2018, May 6). Kin of Manipur encounter victims still wait for justice. *The Hindu*. Retrieved May 12, 2018, from

<http://www.thehindu.com/news/national/other-states/kin-of-manipur-encounter-victims-still-wait-for-justice/article23788979.ece>

⁴¹ Sen, A. (2017, July 20). SC order on Manipur fake encounters is a step forward in long road to justice. *The Wire*. Retrieved May 12, 2018, from <https://thewire.in/government/manipur-fake-encounter-supreme-court-afspa>

⁴² Naorem, D. (2015, September 29). A contested line – Inner Line Permit in Manipur. *Raiot*. Retrieved May 12, 2018, from <http://raiot.in/a-contested-line-inner-line-permit-in-manipur>

⁴³ Ningthouja, M. (2015, September 7). ‘Us’, ‘them’ and an elusive peace. *The Hindu*. Retrieved May 12, 2018, from <http://www.thehindu.com/opinion/lead/the-cry-for-an-inner-line-permit-system/article7622240.ece>

⁴⁴ *Ibid*.

⁴⁵ Laithangbam, I. (2015, July 13). Inner Line Permit: Protests continue to rock Manipur. *The Hindu*. Retrieved May 12, 2018, from <http://www.thehindu.com/news/national/protests-continue-to-rock-manipur/article7414378.ece>

⁴⁶ JCILPS memorandum submitted to CM, Manipur on August 8 2015. Retrieved May 12, 2018, from

http://e-pao.net/epSubPageExtractor.asp?src=news_section.Inner_Line_Permit_ILP_Demand.Download_JCILPS_memorandum_submitted_to_CM_Manipur_on_August_8_2015

A respondent spoke in Meiteilon about the use of Facebook by activists to organise a peaceful protest in support of the ILP movement:

“Through Facebook we coordinated a silent and peaceful protest and mobilisation. We started a Facebook page and requested people to volunteer to make posters and plaques for a protest at Keisham Park. We did not take permissions [from the police and other agencies] to hold the protest. Around 50 people gathered at the park and stood for one hour holding plaques in silent protest. People were very enthusiastic about participating in it and kept making inquiries about it... There was no known or noticeable backlash from the government.”

2.4. Protests against the introduction of ILP, Churachandpur, 2015

Kuki groups opposed the demand for the introduction of the ILP, leading to arson and violent clashes in the Kuki-majority districts of Chandel and Churachandpur⁴⁷. The earliest verifiable Internet shutdown in Manipur occurred during this time. As one respondent recalled,

“In connection with the ILP movement...protests and violence were more intense in Churachandpur and it was spreading. Nine people died after the police opened fire on a peaceful protest that turned violent. The protesters were burning houses of ministers et cetera. Then curfew was imposed. The photos of the dead people were all over the Internet. To curb the spread of violence via rumours and news on the Internet, the government imposed an Internet shutdown... The curfew would be relaxed for a few hours, 7 a.m. to noon and that is when we activists would do our field work or professional work in Churachandpur. The atmosphere there used to be very tense.”

Role of women in peacebuilding and conflict management

Women led the public protests against the Churachandpur incidents in a bid to prevent more violence because men in the security forces and male protesters are more likely to clash with each other. (*“Men and men fight a lot”*.) Another reason for women to be in the forefront was to retain the intended peaceful nature of the protest. Women are more visible and participate in public protests in large numbers in Manipur because, as one respondent put it, *“We are tired of the violence and disruption, but men are aggressive and want to fight more... Men get provoked very soon.”* **This finding is consistent with previous observations that women take the lead in non-violent mass mobilisation and peacebuilding activities in Manipur⁴⁸. It potentially strengthens the need to advocate for women to have reliable access to means of communication.**

⁴⁷ *Supra* note 43.

⁴⁸ *Role of women in conflict management: A study of insurgency in valley areas of Manipur.* (Rep.). (January 2010). Human Development Society. Retrieved May 12, 2018, from <http://bprd.nic.in/WriteReadData/userfiles/file/201609180123336398494Report.pdf> [PDF]. Archived at <https://webcache.googleusercontent.com/search?q=cache:Cn8DbDudMdoJ:bprd.nic.in/WriteReadData/userfiles/file/201609180123336398494Report.pdf+&cd=7&hl=en>. Research report submitted to Bureau of Police Research and Development, Ministry of Home Affairs, Government of India.

Part 2: Impact of low and unreliable QoS on the surveyed group

1. Impact on professional life

We categorised the adverse impacts of their continual inability to communicate in a timely manner as:

1.1. Loss of professional standing

Not-for-profit organisations found that donor organisations were unwilling to provide them funds or work with them because of the difficulties involved in communication. Two respondents referred to a **loss of funding sources and strained professional relationships**:

“Whenever we have a fund transfer from the funders we are unable to access the information, which affects our planning and strategies. Sending reports is a huge issue when Internet does not work. We have to bear harsh words of the funders.”

“If there is no proper network, it slows down my work... I can't send the reports for funders on time and because of this it discourages many funders to work with us.”

1.2. Miscommunication

“The phone connection is bad and bosses need to repeat calls to have a single conversation and it leads to bad communication.”

“It is hard to travel for work as it [information] can't be communicated and it causes uneasiness.”

1.3. Loss of professional efficiency

“The network here is very bad and there are a lot of cross-connections and congestions [sic]. Sometimes the network does not appear for a few minutes. It's during those times that it is hard to contact my bosses. I would need their permission to move forward but I am unable to do so due to bad network.”

“Sometimes we have to read [aloud] an entire document through [over the] phone due to bad Internet connections, when we are unable to send mails.”

“In other districts there is no Internet for days together. Mobile network is bad. There is frequent electricity shutdown [outage]. Our tablet needs a lot of Internet bandwidth and this is a huge problem. We would need to upload 3-4 reports a month. But it is hard to even do that. We have finally started using emails instead of the [software] application to upload reports online.”

“I have to regularly send accounts to [our] accountant. Due to lack of better Internet this is hard. It is also hard to talk through [discuss] plan[s].”

A respondent who is an entrepreneur in Imphal said,

“Most of the orders [from customers or clients] come from [sic] phone and now from [our] website. When people call, due to bad network, we can't hear them properly. It is hard to send SMS as well. Even getting better quality phones does not help. This is also the reason why we keep more than one SIM cards. When running a business, [making] frequent [attempts to establish] communication is very frustrating, especially with poor signal.”

One respondent referred to electricity outages owing to heavy rainfall happening from April to June, which caused network infrastructure to stop working.

1.4. Loss of productivity and work-life balance

Respondents told us that they lost work hours to slow, weak or unreliable networks, which reduced their productivity, and in turn, their work-life balance. These imbalances adversely affected their emotional well being. One respondent indicated that the inability to maintain communication with her family via phone calls caused her family to worry for her, because of which she could not focus on her work.

Other responses:

"Low network speeds affect our work as we can't get the required reports from our colleagues. We have to work late into the night or odd hours to send a report. It takes away from the personal time when I come back home from office."

"I have to spend a lot of time to get things done. So a lot of time is wasted. It also creates irritation and affects the well being. One can't have positive thoughts because of the anxiety and worry. This also leads to cancelling [sic] of personal plans."

"If there is no phone network, it is an issue, because people don't turn up for work. I have to make personal conversations for people to come to the loom."

"Whenever the information is to be gotten for other colleagues, it takes more time to do the work. It wastes time."

"Network is fluctuating [during the day]. It is mostly better in the night. Heavy documents are hard to send... Reports are hard to send... It is very frustrating to send documents and sometimes it takes a few days... Sometimes while communicating with funders, they ask us for additional documents."

1.5. Hindrance to crisis interventions

Poor quality and unreliability of network services was a major stumbling block in the time of crises and natural disasters. It reduced the respondents' ability to respond to and intervene during crises:

"Whenever there is a crisis we can't communicate with the head office. We are unable to update about the relief work to the bosses and funders."

When the respondents who provide community support, aid, rescue or other interventions could not be reached, it adversely affected entire communities and individuals in crisis. It also hampered their efforts for seeking justice for victims. A respondent referred to three different situations in which unreliable networks unfavourably affected her work:

1. In the process of gathering and recording evidence admissible in a court of law in cases of domestic abuse and child trafficking.
2. Reaching the location of rescue in time after having received a tip-off or emergency call.
3. Providing interventions in time in cases that could have been potentially mitigated.

"I work with [victims of] domestic abuse and child victims of trafficking. Bad networks affect my work because I can't communicate [with the victims or my colleagues]. It affects the cases, especially it leads to loss of information when talking with the victims. The lapses in the information has [sic] sometimes led to the cases failing in court. Sometimes I could not reach the location for rescues in time because of bad network. During some incidents when people have contacted me, I was not reachable. The incidents blew out of proportion because of lack of intervention by me."

A respondent who was an elected member of a *gram panchayat* said,

"I could not attend to a lot of emergencies because of bad communication."

1.6. Loss of opportunities and professional credibility

"People were complaining that I was an activist [but] I was not reachable [when they needed my help]. There were some instances when I was not able to reach my people and it led to missed opportunities."

"When someone from the other end [the funder] asks for immediate information it can't be sent. We have missed programs because of this."

The respondent who served on a gram panchayat said,

"It affects my work because it is hard for me to be physically present for everything and so phone calls are medium of communication with the community and women... Messages usually fail during the day."

1.7. Economic losses

"... whenever we want to submit the proposal [to the funder], at the time if the network strength is low, [then] it takes more time. Sometimes it can't be submitted, [then] it leads to economic losses."

"Communication lag for [procuring] materials is an issue. Raw materials come from outside [the state] for our business and bad Internet affects that."

1.8. No apparent effect

One respondent said that her work was unaffected by the quality of Internet services as she relied on phone calls and SMS for her work.

2. Impact on personal life

2.1. Personal safety and emotional well being

One of the respondents unequivocally stated that the **use of mobile phones increased the perceived levels of security among Manipuri women outside their homes and in public places:**

"Having a phone is a way of feeling secure. When in 2006, there were not many mobile phones in Manipur, we were doing focus group discussions with women on the status of security of women. One of the outcomes was [that] women would feel safe if they had a mobile phone. But we did not think that it would turn [into] a reality in 2016 where every woman has a phone. Today it's a better situation because women can inform their family members if they are going to be late or if they go out. It helps when we travel to other states or overseas. We can keep in touch with our family. At least we can text [them]. It is a good thing."

A recurrent statement in different responses was that poor quality of voice and data services caused the respondents to feel vulnerable and anxious over their own safety and that of their near ones. Being continually disconnected from their social circles and family negatively impacted their domestic and social lives and strained their personal relationships:

"I have to be in constant touch with my family, at least call them 4-5 times a day. When [the] phone network does not work, it affects me because my family gets worried... When I come back from office it is 6 or 7 p.m... it is pitch dark and no one is out on the streets at that time, I use my phone to call friends and family for company [to commute back home]."

"Where there is no network I am unable to message or inform my spouse [about my whereabouts]. Sometimes, during special days like Republic Day or Independence Day, there is more checking [on the highways, city roads and public places] and I unable to inform [my family] that I may be late to come back home. It also causes lots of tensions within relations."

"I have felt unsafe due to lack of network. I get frustrated when there is no network I always feel that if I have better gadgets it can help me. I don't feel like staying in my village because of this and I feel that I should move to the city. I feel that the phone is useless like this."

"When I go out for work and when I am returning back late evening... When I am supposed to pick up [answer calls], and I am unable to connect with my transport, I am scared and feel insecure. It happens all the time."

"I feel unsafe with no network, I can't connect with friends. If I don't have conversations with my friends I feel unsafe."

"There is no communication with [my] social circles and family. I cannot send mails or messages to [people in my] social circles... My husband travels on work in [redacted] and surrounding areas often and for long [durations]. It is difficult to know why he cannot be reached. It happens very frequently that there is no mobile connection [signal] or no Internet. The battery could be down or there is no connectivity or poor network. In the hill districts, network is worse than the Imphal valley. I cannot communicate with him for a long time and that makes me anxious."

"It hampers my personal life... There is difficulty in communication with my family and friends."

"When I upgraded my phone to smartphone, I started communicating with my friends through mobile internet... I was frustrated [that] we had to stop communicating because of bad network."

"Mobile network is bad when I travel and family is unable to contact me."

It may be reasonable to infer that **anxieties over safety and the deterioration of personal and professional relationships are compounded by the prevalent socio-political situation in Manipur and the pulls and pressures of the respondents' own lack of work-life balance.** (Refer to 1.4. *Loss of productivity and work-life balance.*)

2.1.1. Issues in the highlands

In the hills surrounding the Imphal valley, network issues are reportedly worse. One of the causes is the **shortfall of electricity** in the state. Mobile base transceiver stations (BTS), or "mobile towers" as they are commonly called, are operated on diesel generators and back-up batteries in the event of a power outage^{49,50}. A respondent who lives in one of the hill districts said,

"It is very disturbing when there is no network. Manipur sometimes does not have enough fuel to run the mobile towers, so we don't have Internet."

⁴⁹ India, NITI Aayog. (n.d.). *Replacement of Diesel in Telecom Sector*. India Energy Security Scenarios 2047. Retrieved May 12, 2018, from http://iess2047.gov.in/assets/onepage/Telecom_One-pager.pdf [PDF]. Archived at https://webcache.googleusercontent.com/search?q=cache:KbCeQPcB9y0J:http://iess2047.gov.in/assets/onepage/Telecom_One-pager.pdf%2Bdiesel+india+electricity+mobile

⁵⁰ *The True Cost of Providing Energy to Telecom Towers in India*. (August 2012). Intelligent Energy. Retrieved May 12, 2018, from GSMA website: <https://www.gsma.com/membership/wp-content/uploads/2013/01/true-cost-providing-energy-telecom-towers-india.pdf> [PDF]. Archived at https://webcache.googleusercontent.com/search?q=cache:TCgF5Q6_0YMJ:https://www.gsma.com/membership/wp-content/uploads/2013/01/true-cost-providing-energy-telecom-towers-india.pdf%2Bdiesel+india+electricity+mobile

In remote areas, BTS are few and far between. The respondents faced concerns over physical safety apart from experiencing feelings of isolation, anxiety or fear.

"When I go to remote areas for work, I am totally cut off. There is no news [from anyone] and I am worried. I am compelled to go to work in those places because I work with women's issues there. I feel isolated though when I work there."

"I was once at a remote hill [sic] area in Senapati district and [in] that place, due to low network I could not send a message. I was there to meet someone but I could not make contact with him. At that time I was scared and I also lost my way. Thankfully, I got the network after a while and communicated with the person. It was a very scary experience."

2.2. Freedom of speech and expression

One respondent in the surveyed group stated that unreliable and low QoS affected her freedom of speech and expression.

2.3. Leisure and entertainment

There are very few avenues of affordable and easily accessible means of entertainment in Manipur. Cinema from other parts of India was banned from theatres by revivalists who wanted films in Manipur's languages to be screened exclusively. Lack of infrastructure and the absence of an organised entertainment sector led to films of low audio-visual or cinematic quality being played at local cinemas. The Internet, with its video streaming services, provides some recreation. However, as one respondent told us,

"There is definitely a miss-out on [watching online content from] entertainment [TV] channels. I can't enjoy video watching due to buffering. It is very frustrating."

3. Use of mobile devices and the Internet during disasters

Manipur witnessed one of its worst floods in 2015⁵¹. In the next two years, tropical cyclones Roanu (2016)⁵² and Mora (2017)⁵³ hit Manipur. Heavy rains, flash floods and landslides came in the wake of the cyclones, killing several people and causing immense economic losses. A powerful earthquake struck Manipur in January 2016⁵⁴. The responses about the use of the mobile phone and the Internet during these natural calamities may be clustered into five categories:

3.1. Personal use

These respondents could use the Internet, mostly WhatsApp and Facebook, to convey their status to their near ones and social circles as well as to post updates about the disasters.

3.2. Networks were available but users did not receive help

Some respondents could access mobile networks during and after a disaster had struck and had actively sought help by using phone calls, but they did not receive any relief

⁵¹ Davies, R. (2015, August 6). India Floods – 500,000 Affected in Manipur. *Floodlist*. Retrieved May 12, 2018, from <http://floodlist.com/asia/india-floods-500000-affected-manipur>. "The European Commission's Humanitarian aid and Civil Protection department (ECHO) say that floods in the state are the worst in 200 years."

⁵² Davies, R. (2016, May 25). India – 2 Dead in Manipur Floods, Several Rivers Overflowing After Heavy Rain. *Floodlist*. Retrieved May 12, 2018, from <http://floodlist.com/asia/india-2-dead-manipur-floods-several-rivers-overflowing-heavy-rain>

⁵³ Cyclone Mora: Heavy rain causes flood in Manipur. (2017, May 31). *ANI*. Retrieved May 12, 2018, from Business Standard website:

http://www.business-standard.com/article/news-ani/cyclone-mora-heavy-rain-causes-flood-in-manipur-117053101542_1.html

⁵⁴ Quake strikes northeast India, Bangladesh; 11 dead, nearly 200 hurt. (2016, January 4). *Reuters*. Retrieved May 12, 2018, from <http://news.trust.org/item/20160104013241-etuzq/?source=jtOtherNews3>

3.3. Poor QoS/ lack of network coverage hampered relief and rescue

Relief and rescue operations were hampered by poor QoS or complete lack of coverage:

"I was not involved in relief. But [my] colleagues were. In the field we needed to communicate for situation assessment. But it had been hard to communicate due to low network. The funders and bosses ask for pictures and updates but we have not been able to do that because of lack of stable network. But when the network is [sic] better we have been able to get additional relief materials."

In places where no rescue operations were carried out, poor QoS hindered disaster victims from securing help on their own. The respondent who held an elected position in a *gram panchayat* stated that she was unable to seek help in her official capacity because of bad network connectivity. No rescue operations were carried out in her village until the residents contacted the local MLA and the Member of Parliament.

Another respondent who worked for a church charity involved in disaster relief activities in Manipur had a similar experience,

"In 2015 earthquake and floods, the most affected were the people from the hills. Roads were shut down and people died in the villages due to lack of amenities and medical assistance. Our organisation helped in providing shelter in another place and provided for their needs. [Redacted name of charitable organisation] later helped in constructing the roads. Phones did not help here due to no network. It was the personal visit that helped."

3.4. Active use to coordinate relief and rescue operations

A fourth group of respondents could access mobile networks (both voice and data services) and actively used them to coordinate disaster relief and rescue operations for affected people,

"I have also used the phone and WhatsApp as a way of resource mobilisation for the affected areas."

"During the flood I was collecting information on who and how they were affected. I got the information and decided the next step. The self-help group leaders contacted the [gram] panchayat and that helped. The phone helped a lot."

"There was no known Internet shutdown at the time of the floods. I was not involved in flood relief or rescue. Some of my acquaintances were but they did not rely on the Internet. They used the mobile phone to make calls."

3.5. Not used for disaster relief

Some respondents either did not feel the need to use SMS, wireless voice or wireless Internet services for disaster relief activities or they chose not to do so.

4. Consumer relief for low QoS

The respondents were subscribers of one or more these telecommunications service providers: **Airtel, Aircel, BSNL, Vodafone, Idea, Tata (DoCoMo and Indicom) and Reliance Jio**. All respondents had experienced low and practically unusable wireless Internet speeds, dropped voice calls, and low or zero strength of wireless signal at different times and places in Manipur. The respondents had experienced variations in quality of service over time, across service providers, and across locations within the highlands, the Imphal valley and outside Manipur. We chose to treat these statements as **anecdotal evidence because the constraints of this preliminary study did not allow us to corroborate it with technical measurements or to contact the companies for their stand on the issue of poor QoS** in Manipur.

Complaints lodged by the respondents with the mobile network operators were not resolved to their satisfaction. The names of operators in their responses have been redacted to keep the respondents from being potentially deanonymised:

"Yes, [I] tried complaining to the network providers. The response is usually standard. The customer service executives are usually nice and provide impressive reasons and are nice to customers but the situation does not change. [I am] fed up with their lack of improvement in services in spite of complaints. I have stopped complaining."

"Yes, I called the customer care. They responded but did not take [any] action. I visited Service C office and they took action. I quit [using] Service C last month because the network was poor."

"With Service E we had regular correspondence for a previous line. We had the broadband line but it would work for 4-5 days and then not work for a week. But our monthly bill remained the same. In the end we disconnected the line."

Other respondents did not file complaints for various reasons. They had never considered it; they were not aware of the right authority or official to complain to; or they did not believe that complaining to customer relations departments would solve their problems because it was the government that lacked the will to bring connectivity to remote rural areas.

"No, I haven't complained to the companies because I don't think they can solve these issues. I don't know where to complain also. It is very much an issue at the policy level with the government. They are not concerned about remote villages. Some villages don't have regular transport services, forget phone network or Internet."

One respondent said she did not consider filing a complaint because the people in Manipur "have no culture of complaining".

5. State of network coverage in Manipur

Because all respondents spoke about frequent issues of low QoS in different parts of Manipur and with different mobile network operators, we examined publicly available information about the QoS in the state.

5.1. Airtel Open Network

Mobile network operator Airtel India provides public information about its networks through Open Network (<https://www.airtel.in/opennetwork>). This information includes:

- Geolocations of Airtel's BTS
- Status of BTS (categorised as "existing", "upgrading", "needed" and "forcibly shutdown")
- Quality of network coverage (regions with "no coverage" and those with "moderate", "good" and "excellent" coverage)

Open Network enables Airtel India subscribers to view network coverage in their locations and report the locations where coverage is poor. According to information published on its website⁵⁵, Open Network urges subscribers to help find spaces for installing new BTS where those are needed, including areas where Airtel's BTS "have been shut down by property owners or relevant authorities".

⁵⁵ Facing network issues in your area? (n.d.). Open Network. Retrieved May 12, 2018, from <https://www.airtel.in/opennetwork/reportIssues>

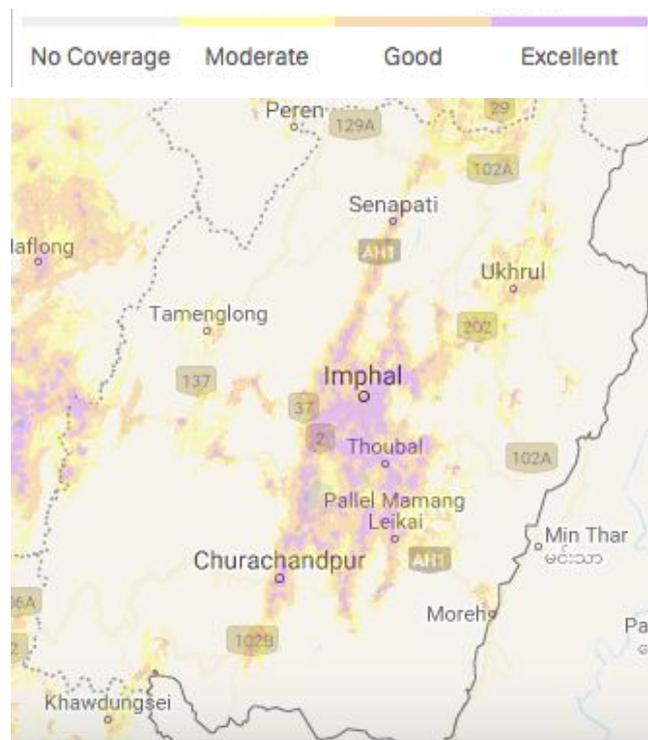


Image 3. Heatmap of Airtel's 2G services in Manipur as displayed on Airtel Open Network, May 18, 2018



Image 4. Heatmap of Airtel's 3G/4G services in Manipur as displayed on Airtel Open Network, May 18, 2018

The Open Network map for Manipur shows **“good” to “excellent” coverage in and around the Imphal valley and practically no coverage in the highlands**. One explanation for this disparity could be that **installing and maintaining BTS in mountainous terrain involves higher costs and more investment of resources than in the plains**. Mountainous areas also tend to be relatively less populated and the density of subscribers is generally lower, which could affect the viability of

business⁵⁶. Additionally, it is uneconomical to run diesel generators to fuel BTS in the hills in the time of grid power outage. (Refer to 2.1.1 *Issues in the highlands* for responses related to power outage.)

As the Open Network website acknowledges, the quality of network displayed on the Open Network map is not a definitive marker of the actual everyday experience of a user. A number of factors could affect this experience, even when the map shows excellent coverage:

- **Power outages**, especially when frequent or long enough to render back-up power inadequate.
- **Physical obstacles** such as buildings and walls that block or reduce the quality of signal. This is more common in areas that are densely populated and/ or where buildings and other structures located cheek-by-jowl block mobile signal at all times.
- **Network congestion**, which also is more common in densely populated areas, occurs when a network node or link is transferring more data than its capacity. As a result, the QoS reduces for all or some of its users. In other words, network congestion exhibits itself as “slow Internet speed” to some users, while others are unable to connect to the network.
- One of the respondents referred to the use of “*jammers in VIP security areas*” in Imphal. The undeclared deployment of **mobile signal blockers** in areas where security arrangements are stringent and elaborate, typically because of the presence of a “very important person” to the government, could be another reason for poor QoS.

5.2. TRAI data

The Telecom Regulatory Authority of India (TRAI), an autonomous regulator established by the Indian government publishes QoS data submitted to it by all mobile network operators across the country. TRAI’s Quality of Service Analytics portal displays on a map of India the visualisation of information about call drop rates and BTS density for every month starting from January 2016⁵⁷. Manipur and five other states constitute the “North East telecom circle”, an administrative grouping. On the portal, **QoS data for Manipur have been lumped together with that of five other states under the label “North East”**, which makes it impossible to discern any information about network quality in the state.

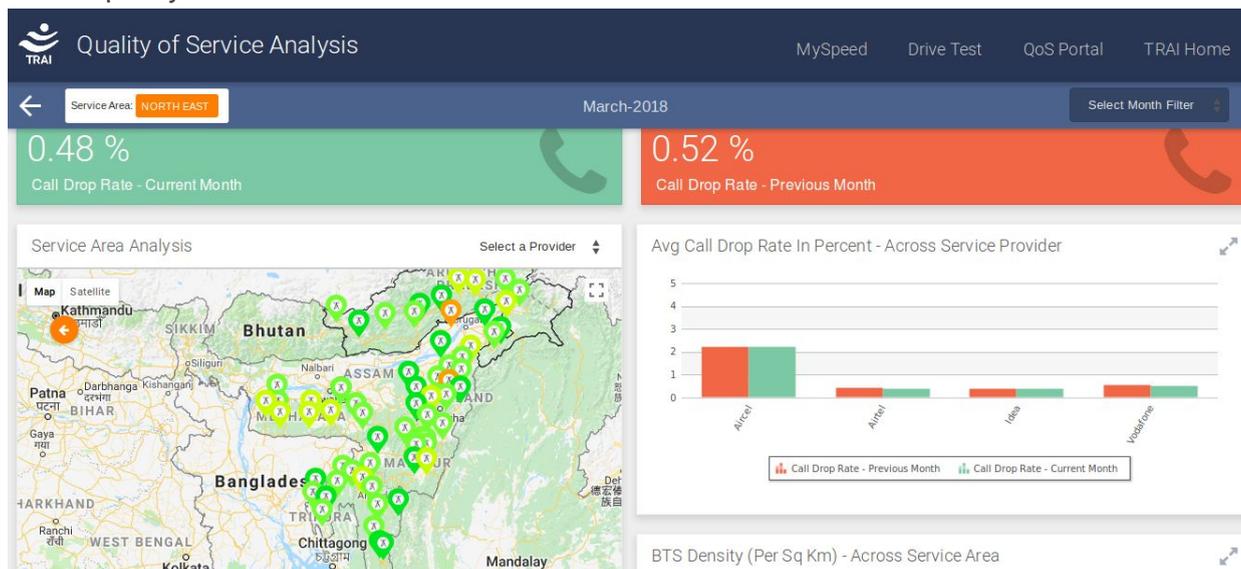


Image 5. Screenshot of TRAI’s Quality of Service Analytics portal as of May 18, 2018 displaying information for six northeastern states including Manipur

⁵⁶ Airjaldi’s Garhwal Network in India. (n.d.). *Wireless Network In The Developing World*. Retrieved May 12, 2018, from http://wndw.net/CaseStudies/Airjaldi_Garhwal_Network.html

⁵⁷ Telecom Regulatory Authority of India. (March 2018). *Quality of Service Analytics*. Retrieved May 18, 2018, from <http://www.analytics.trai.gov.in:8081/#/view>

Searching for “Manipur” leads to a point labelled “**Incredible Manipur**” in Imphal West district, as displayed in the screenshot below. Like all discrete geolocations on the map, this one only shows information about call drop dates and BTS density in a four-kilometre radius around it.

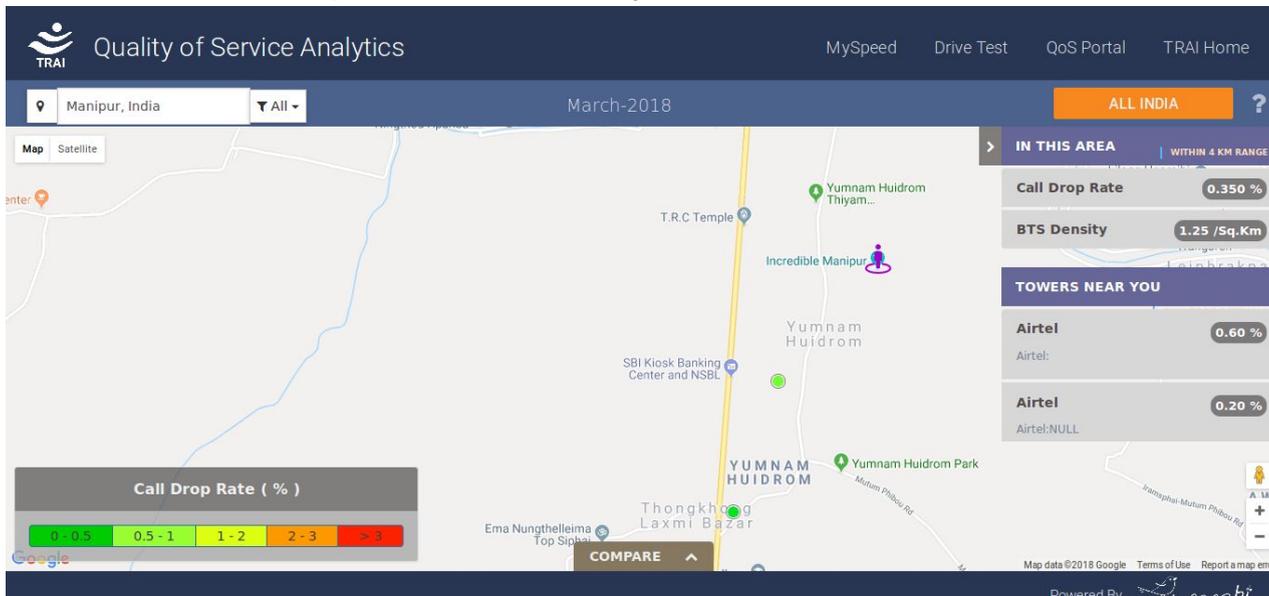


Image 6. Screenshot of TRAI’s Quality of Service Analytics portal as of May 18, 2018 displaying information for the search query “Manipur”

Similarly, querying the map for names of different districts (**Imphal East, Imphal West, Tamenglong, Kangpokpi, Bishnupur, Thoubal, Churachandpur, Jiribam, Kakching, Noney, Tengnoupal, and Kamjong**) in Manipur leads to specific geolocations on Google Maps which show information about network coverage within a radius of four kilometres around those points and not the entire district. The rationale for choosing those geolocations is not immediately apparent from the reports, methodology and other documents available on the QoS portal. (Searching for “Manipur” on Google Maps yields the map of the entire state; “Incredible Manipur” is a spot marked by a general user.) Periodic reports released by TRAI also contain data for six states clubbed into the northeast category and do not offer any granularity for those states. *E.g.*, some TRAI reports⁵⁸⁵⁹ explicitly state that, “**Data/information for... North-East includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland & Tripura states**”.

⁵⁸ Telecom Regulatory Authority of India. (2016, December 30). *The Indian Telecom Services Performance Indicators July - September, 2016*. Retrieved May 12, 2018, from

https://www.trai.gov.in/sites/default/files/Indicator_Reports_Ending_Sep_30122016.pdf [PDF]

⁵⁹ Telecom Regulatory Authority of India. *Performance Indicators Reports*. Retrieved May 12, 2018, from <http://www.trai.gov.in/release-publication/reports/performance-indicators-reports>

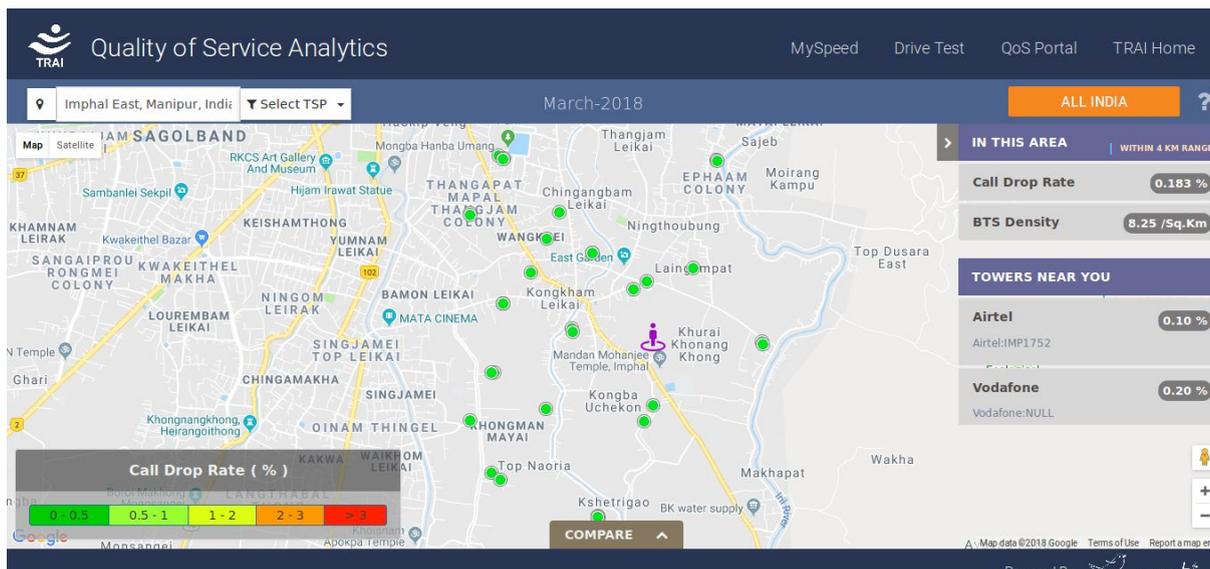


Image 7. Screenshot of results for the query “Imphal East” district as of May 18, 2018

According to data available at the time of writing (dated March 2018), queries for the hill districts of **Senapati, Chandel, Ukhrul** and **Pherzawl** return the message, “No towers were found”. This is the only conclusive information found for the state of Manipur on the QoS Analytics portal. Open Network also displays that there are no BTS run by Airtel in these districts. We may use TRAI’s data from the different districts in future versions of the study; such analysis was not feasible in this preliminary phase.

5.2.1. Other issues with TRAI’s QoS data

The findings of a study conducted by the Indian Institute of Technology (IIT), New Delhi and consumer welfare organisation Consumer Unity and Trust Society (CUTS) show that TRAI’s QoS figures could be misleading or incorrect⁶⁰. The QoS figures differ significantly from those reported in consumer surveys and in technical measurements carried out by the authors of the study in the years 2013 and 2014 at different rural and urban locations in India.

5.3. Government data

A search on the open data portal Data.gov.in did not yield any information about the use of the Internet and mobile phones specifically in Manipur. Like the TRAI, the Department of Telecommunications (DoT), which functions under the Ministry of Communications and Information Technology, clumps its data of Manipur with those of five other northeastern states. This is also the case with some statistics noted in minutes of the Parliament’s proceedings, e.g., this question posed to the Minister of Communications and its corresponding answer (Annex I and II) with data about Internet penetration in India: 164.100.47.190/loksabhaquestions/annex/11/AS83.pdf

6. Use of multiple mobile devices and connections

The respondents overcame some of the difficulties they faced due to poor connectivity by using more than one mobile connection and/ or device. Multiple mobile connections were used for reasons of redundancy (i.e., as back-up when their primary network dipped low), for dedicated purposes (e.g., only for accessing the Internet) and for different locations they frequently travelled to. The use of multiple mobile connections was also a means of compartmentalising their personal and professional lives or separating the different roles they play. (Refer to [Image 1. Use of email, WhatsApp, Facebook and mobile phones among the surveyed group.](#))

⁶⁰ CUTS, IIT Delhi. (2016). *Mobile Internet Services in India: Quality of Service*. Retrieved May 12, 2018, from www.iitd.ac.in/research/IITD/1615_QoS_Report_CUTS_IIT.pdf [PDF]

A respondent who frequently travelled within and out of Manipur had subscribed to three different mobile service providers. She said that she used multiple mobile connections “because of lack of uniform network” and because “having more options helps” when she is travelling.

Other responses about using multiple mobile connections:

“I use Jio for my daily life in Imphal. I use Airtel back home. Jio connectivity in my village is bad.”

“One [connection] for office calls and work and another for personal Internet use.”

“One SIM [card] for Internet and another for [use in] hill districts and field visits.”

“For field work. Also, my office is located near [redacted] where there is poor network. It has low speeds, hence more than one SIM [card].”

“It is hard to communicate with the bad networks. Sometimes it hard to communicate through Aircel. Sometimes [on] Jio one can't hear the voice of the caller. Networks are too bad, hence two SIMs.”

“Aircel for phone calls and SMS. Airtel for Internet. Internet network is bad. Even though I have a 4G SIM card, I get 2G/ 3G network.”

“I use Idea for Internet and Aircel for calls.”

“Sometimes Airtel's network does not work. So I use Jio as secondary SIM for Internet.”

A respondent who subscribed to different mobile network and wired broadband service providers stated,

“BSNL, there is a problem with connections. There was issues [sic] for people to connect with me. Then [some] people suggested [that I subscribe to] Vodafone. So it helps with travel. Especially in Delhi, Vodafone is better. Also, it is better in other places with low connectivity. At this moment Jio is the best network for Internet. Vodafone is also good connection for Internet. Phone calls and Internet both were bad in connectivity. I had people asking me being an activist why is my phone always switched off.”

On the other hand, an activist who owned only a basic mobile phone and one mobile connection elucidated that there was no clear delineation between her different roles,

“I never felt I should separate my social, personal and professional lives by using different SIM [cards]. My professional work is personal in a way.”

Part 3: Life in the time of shutdowns

Three distinct incidents of intentional Internet shutdowns in Manipur emerge from our interviews, two of which were verified through news reports, government orders and other reliable sources. No information was found online in English about the third – an undeclared shutdown during elections in Kangpokpi district. The fourth reported shutdown could not be confirmed at all because of lack of specific information about it from the respondent.

Economic blockade, December 2016

From December 17 to 30, 2016, all operators of wireless Internet services were prohibited from running their services in East Imphal and West Imphal districts by orders of their respective District Magistrates. The orders state that the step was taken to restrain the circulation of rumours about violence and public unrest via the Internet.

Imphal was then facing an indefinite economic blockade called on November 1, 2016 by the United Naga Council (UNC), a collective of Naga peoples in Manipur. The movement of goods and trucks was completely blocked on two arterial National Highways leading to Imphal. In response, the people of Imphal conducted a counter-blockade, cutting off transport on roads that led out of Imphal. Prices of food, fuel and essential commodities surged, resulting in major incidents of violence and arson in different parts of Manipur. The situation was aggravated because of banknote demonetisation, Christmas and New Years' Eve falling during the blockade. The shutdown was ordered on December 17 on the premise that the Internet, especially social networking websites and instant messengers such as WhatsApp, were being used to spread rumours that could potentially worsen the situation.

This instance of Internet shutdowns was verified via copies of the District Magistrates' orders^{61,62}, credible news reports⁶³, and existing literature. Four noteworthy findings emerge from the interviews:

- 1. Some respondents experienced that services for wireless Internet, wireless voice, SMS, and wired Internet were turned off even though the official orders were to shutter only "mobile data service". Some others were able to access mobile phone calls and wired broadband services during the Internet shutdown.**
- 2. The government did not issue a public notification that it had implemented the shutdown.**
- 3. Wireless voice and data services, including SMS, were only partially restored on January 1, 2017 despite the shutdown being called off⁶⁴.**
- 4. Internet services of state-run telecom company BSNL were running during the shutdown for most subscribers, albeit with low quality. Services of all private telecom companies were shut.**

Potential explanations for (1) could be:

- The government issued separate, undeclared orders to turn off or throttle wired Internet and voice networks.

⁶¹ India, Office of the Deputy Commissioner/ District Magistrate, Imphal West District, Manipur. (2016, December 17). *Orders*. DC(IW)/1/CON/669/(L&O)/16. Retrieved May 12, 2018, from

<http://thebachchaoproject.org/wp-content/uploads/2018/05/december-2016-manipur-shutdown-orders-2.jpeg>

⁶² India, Court of the District Magistrate, Imphal East District, Manipur. (2016, December 17). *Orders (Under section 144 of the code of criminal procedure)*. Cril. Misc. Case No. 37 of 2016. Retrieved May 12, 2018, from

<http://thebachchaoproject.org/wp-content/uploads/2018/05/december-2016-manipur-shutdown-orders.jpeg>

⁶³ Manipur blockade: Timeline. (2017, March 19). *The Hindu*. Retrieved May 12, 2018, from

<http://www.thehindu.com/news/national/other-states/timeline-on-manipur-blockade/article16978131.ece>

⁶⁴ *Ibid*.

- Severe congestion occurred on wired Internet and voice networks in the absence of wireless Internet services, which gave the respondents the impression of a total shutdown.
- Telecom service providers over-complied with the government's orders to switch off wireless Internet. Studies and news reports about surreptitious state censorship of URLs and websites in India that occurs during times of crises indicate that ISPs often receive orders that are ambiguously worded. These orders require them to comply quickly and before seeking clarifications from the issuing agency⁶⁵⁶⁶⁶⁷⁶⁸⁶⁹.

A statement by the CEO of an IT company in Imphal published in a news report coincides with (1), "...CEO of Globizs Web Solutions Company, claims that even broadband-network connections received through optical [sic] fibre cables were not spared from the third day of the [inter]net ban..." The same news report mentions that he later retracted his statements and directed the reporter to the CEO of a private ISP in Imphal, who "brushed aside any suggestions of" the shutdown of wired broadband Internet and asserted that the shutdown was "confined only to mobile data services"⁷⁰.

A respondent who lived in Senapati stated that the Internet shutdown happened only in Imphal and that Senapati was not affected by it, indicating that over-compliance or bandwidth throttling – if at all they had occurred – did not extend to other districts in Manipur.

Violence in Churachandpur, September 2015

Wireless Internet and voice services were shut down from September 1 to 8, 2015 in the wake of violence in Churachandpur district where protests against the introduction of the Inner Line Permit (ILP) regime were the strongest. (For details of the situation, refer to [2.2.4. Protests opposing ILP, Churachandpur, 2015](#). For relevant news reports, refer to [Bibliography](#)>News reports corroborating wireless Internet shutdowns in Manipur.) Based on news reports and the interviews we conducted, we find these commonalities with the [shutdown of 2016](#):

⁶⁵ Philip, J.T., & Julka, H. (2012, August 25). Blocking Twitter: How Internet Service Providers & telcos were caught between tweets and tall egos. *The Economic Times*. Retrieved May 12, 2018, from <https://economictimes.indiatimes.com/tech/internet/blocking-twitter-how-internet-service-providers-telcos-were-caught-between-tweets-and-tall-egos/articleshow/15649540.cms> ("...government orders can range from the super-urgent to arbitrary to sometimes ill-conceived. Very often, its 'one ban fits all' makes little allowance for differences... 'Within an hour of the directive, we started getting calls seeking compliance'... But as the Centre was demanding compliance reports, operators were busy trying to decipher its notification... 'Going by past instances, some operators had feared that the government would slap a hefty penalty for non-compliance without considering what we had to say'... 'We don't even do any application of mind to the government's notices on requests. We wholesale block them. We can't even question the government's requests. A notice is a law in effect...")

⁶⁶ Prakash P. (2012, August 22). *Analysing Latest List of Blocked Sites (Communalism & Rioting Edition)*. Centre for Internet and Society. Retrieved May 12, 2018, from <https://cis-india.org/internet-governance/blog/analysing-blocked-sites-riots-communalism> ("There are numerous mistakes and inconsistencies that make blocking pointless and ineffectual... Despite a clear warning by the DIT that 'above URLs only' should be blocked, and not 'the main websites'..., it has been seen that some ISPs... have gone overboard in their blocking.")

⁶⁷ Dalek, J., et al. (Rep.). (2018, April 25). *Planet Netsweeper: Section 2 - Country Case Studies*. The Citizen Lab. Retrieved May 12, 2018, from <https://citizenlab.ca/2018/04/planet-netsweeper-section-2-country-case-studies>

⁶⁸ CCG NLU Delhi. (2015, 29 August). *The Anatomy of Internet Shutdowns – I (Of Kill Switches and Legal Vacuums)*. Legally India. Retrieved May 12, 2018, from

<https://www.legallyindia.com/Blogs/the-anatomy-of-internet-shutdowns-i-of-kill-switches-and-legal-vacuums> ("The business of widespread internet blocking in India seems to fall within a regulatory vacuum... Telcos without hesitation follow local government 'directives' on barring internet services, fearing governmental backlash.")

⁶⁹ *Primer on internet shutdowns and the law*. (November 2016). Access Now. Retrieved May 12, 2018, from UN OHCHR website: http://www.ohchr.org/Documents/Issues/Expression/Telecommunications/AccessPart_I.docx. ("Many of the laws that governments use to... impose shutdowns are ambiguous and outdated... in India, the government can use a telegraph law dating from... 1885 to justify its decision to take over a provider's network - or otherwise use an older, colonial era broad power on actions to uphold public order...")

⁷⁰ Chanambam, A. (2018). Internet shutdowns cripple fledgling IT industry in Manipur. (D. Haldar, A. Tandon, & S. Barooah, Eds.). *Internet Shutdown Stories*. Retrieved June 7, 2018, from <https://cis-india.org/internet-governance/blog/internet-shutdown-stories>

- The government did not issue a public notification about the shutdown. Most people were initially under the impression that the networks were undergoing issues 'as usual'. They learnt of the shutdown from media reports and word-of-mouth corroboration of the prolonged outage from subscribers of different mobile and Internet services
- Most BSNL subscribers in Churachandpur were able to access its services, however slow and erratic, during the shutdown.
- Internet services, both wired and wireless, and SMS and wireless voice services of other telecom companies were inaccessible in Churachandpur.

One of the respondents affirmed that the government had not made a public announcement about the shutdown of wired and wireless Internet and wireless voice services:

"It was a very unfortunate situation. It was all because of [the] ILP issue... I SMSed my friend and it did not get delivered and I was wondering why it was not responded [to]. Then I realised nothing was working. When I called [someone] there was complete silence. It was not informed to us that Internet was shut down. We only heard from other people that the phones and Internet was disconnected due to the riots. I could not call [anyone] until 3-4 days [later]. After that I was able to make contact. It was also risky to go there [Churachandpur] in that situation."

We were unable to find copies of government orders pertaining to this shutdown.

State legislature elections, Kangpokpi district, February 2017

A respondent, while referring to the days of polling and ballot counting in February 2017 in the Kangpokpi district, told us that mobile networks and Internet services were turned off on both days to preempt public unrest. It was Kangpokpi's first state legislature election since it was carved out of Senapati district in September 2016.

"In Kangpokpi district, during the election day and [the day of] counting [votes] there was no Internet or phone calls for one day each. It [Internet shutdown] reduces the violations and communication [that] leads to fights... During the time of every MLA [Member of Legislative Assembly] election, the network is very poor and there is tight security. There is hardly network to make phone calls. Tower and network [mobile network signal] is shown as available but [one] can't connect with anyone. The Internet and phone calls are usually gone from early morning to late night... The Internet and phone networks are shut off... especially during ethnic conflicts."

The reference to a marked decrease in the quality of network services during every election for the state legislature could possibly be an indicator of undeclared shutdowns or bandwidth throttling. It may be worth noting that troops of paramilitary forces and additional batches of police personnel are deployed during elections in sensitive regions in India to prevent or tackle activities detrimental to conducting polls. Also, if surreptitious shutdowns initiated by state actors happen during elections, then it does not augur well for the Election Commission's plan to enable live-streaming of polling activity to citizens' smartphones⁷¹.

⁷¹ Manipur to use smartphone based recording system during elections. (2017, January 4). *Eastern Mirror*. Retrieved May 12, 2018, from <http://www.easternmirrornagaland.com/manipur-to-use-smartphone-based-recording-system-during-elections>

Unconfirmed shutdown, sometime in 2017

One of the respondents stated that a blanket, intentional Internet shutdown happened for a few hours on an unspecified date in 2017. She could not recall the exact or approximate date of the shutdown because of which we were unable to confirm or verify it.

The curious case of BSNL

Five different respondents stated that services of Bharat Sanchar Nigam Limited (BSNL) were active, albeit patchy, during various incidents of intentional network shutdowns in Manipur. BSNL is a telecommunications company owned by the Indian government. Our conjecture is that BSNL services may have been running despite shutdown orders because all public offices and officials in the country are linked via BSNL's networks. Presumably, different government entities did not wish to be disconnected during the shutdown. As this phase of the study was only preliminary and exploratory, we chose to not seek definitive information about how and why BSNL services continued to work when all others were turned off.

Effects of shutdowns

Based on the interviews, we identified seven different effects of intentional shutdowns on the lives of the respondents. All respondents faced a combination of two or more of these effects.

1. Economic losses

As the shutdowns occurred along with an economic blockade and/ or situations of violent unrest, it is difficult to differentiate the economic effect of shutdowns from that of the blockade and/ or violent incidents and their aftermath. Most of the respondents spoke about inflation during the economic blockade. None received compensation from the government for losses they incurred due to intentional shutdowns. Entrepreneurs suffered economic losses when:

- a. They could not communicate to other entities in their supply-chain and their customers via the Internet or mobile phone:
"There was no market, no work and no business [during the December 2016 economic blockade]. I suffered losses because for one month there was no work... The government gave [us] no compensation [for losses incurred due to the shutdown]. Also, the [raw] material prices rose, so I sold [my goods] at higher prices than usual.
- b. They needed to do online financial transactions. Presumably, the offline option was not available either because of curfews, *bandhs* or public unrest:
"In terms of business, it was hard to communicate with my staff and most of the material for our work was stopped due to blocking of the roads. Because the [fixed line] phones were working we did not face much of a loss... My other business with [redacted] was affected. The orders for this business were placed online. The orders came from people in Manipur and other parts of northeast India. Most of the bank transactions were not possible. So I could not send payments for the orders. I needed to buy the products through an SPO [Special Order]. Many of the orders that were placed online could not be fulfilled... I could not clear the dues even with an extension [of the deadline] because of network issues."

One respondent spoke about the added strain of having to circumvent the established flow and processes in the supply chain:

"It [shutdown] affected our business. Payments for the material could not be done as it was done online. This also led to material [procurement] delays and there was a lot of issue [sic]

to run the business. I had to manufacture a local product and use it for the business. It was a lot of work for me to do that."

An elected member of a *gram panchayat* said that only emergency calling facilities were working during the shutdown and it hampered her official work,

"Two-three years back there was total shutdown and there was only emergency call. I had to submit an important form to the industry department but due to shutdown I could not submit it."

2. Safety

Loss of access to modes of communication in a conflict-ridden geography exacerbated risks to personal and public safety. An activist who belongs to a religious and ethnic minority said,

"During that time my family was facing threats. Because there was no communication medium available I had to travel in the middle of the night to my parents' place. I was being attacked in the community and my parents also were attacked. I had to discuss with them how to protect themselves and myself..."

Another respondent elucidated on how the shutdown caused financial losses and put her and a group of teenage girls travelling with her at risk:

"I was requested to accompany a bunch of young girls from Imphal to Delhi for a training. During the shutdown [of December 2016], we could not book train tickets using [the] IRCTC [online ticketing system] or [ascertain if] tickets [that we] already booked have been confirmed. It was difficult to communicate with the group of girls as well. There is no railway station in Imphal... We [could have] boarded the train from Dimapur and also bought tickets there, but there was no network [connectivity] to call our person there [to book tickets]. We had to fly to Guwahati from Imphal, which became very expensive. From Guwahati, we travelled in separate trains to Delhi. As the tickets were booked at the last minute, there weren't enough seats left on any train to accommodate the entire group."

Her experience shows that the purpose of travelling in a group for the sake of safety was defeated.

3. Freedom of speech, expression and right to access the Internet

One respondent eloquently expressed her sentiments about the need and rationale, or lack thereof, of intentional Internet shutdowns:

"Everyone has a right to express what they feel. Immediately, [the] shutdown of Internet and phone [networks happened] and [it led to] disconnecting one another. At that moment I thought this is not the answer. Because it all happened because of negligence of the authority. [The] Government should have taken other steps. Internet accessibility is my right; phone accessibility is my right. Someone in authority disconnecting me from all sources and all connections, that also for a long period of time. That is not the way it has to be. They could have developed better options and more better mechanism to control all the issue. Like, for instance, why rape happens is not because of my dress. There are all sorts of issues and the root causes are to be addressed. Internet and phone disconnection will not solve our problem. It might be a temporary solution but it is suppressing our voices. It won't sustain [itself]."

4. Emotional well being

Fear, anxiety and frustration resulted in the wake of shutdowns.

Shutdown in 2015:

"I wanted to talk with a friend... She was in Churachandpur and I wanted to take stock of the situation there and look at her needs. I could not make calls and I could not contact anybody."

I felt helpless. So many rumours started. I think rumours are more dangerous. I was also very worried for our friends. It was quite frustrating moments for us."

"At this time my son was in the Senapati district and I could not communicate with him. It caused me anxiety."

Shutdown in 2016:

"For 15-20 days we could not communicate [with anyone]. No emergency cases happened. But it was scary because we could not communicate with people even when they go to [the] bazaar or if they were late from a travel. There was insecurity and fear."

5. No support from the state during emergencies

The shutdowns deprived the people of access to their established support systems. No alternative support or redress was provided by the government in the wake of the shutdowns it initiated.

Some responses:

"We have often faced health emergencies, in which case there is no additional support [by the government]."

"One of the church staff had a serious medical emergency but due to protest, the vehicle was unable to reach the hospital. This led to the death of the person."

"Information about the economic blockade was being circulated on Facebook. I was using it to stay up-to-date. Due to the Internet shutdown, I could not access information about the latest developments. A curfew was imposed by the government and a counter-curfew by the CSOs [civil society organisations] and protestors. Because of the shutdown, people could not get any idea about bandhs, strikes, curfew -- what, where and when is [sic] happening."

"During the Internet shutdown [in 2016], everyone used to update information about the blockade on social media. Due to the shutdown we could no longer share and update. At the time, a curfew was imposed by the government, and protests and bandhs were observed by CSOs. We didn't know what was happening, because of the shutdown".

5.1 Banknote demonetisation, 2016

Indian Prime Minister Narendra Modi announced on a live TV broadcast on the evening of November 8, 2016 that banknotes of denominations ₹500 and ₹1000 would cease to be valid tender from midnight⁷². The move, made with the intent of cleansing the economy of black money and counterfeit banknotes⁷³, resulted in a severe cash shortage and hardship for the people over the next few months⁷⁴. **"Demonetisation" of banknotes, the indefinite economic blockade of 2016, and the Internet shutdown in December the same year came as a triple whammy for the people of the Imphal valley.** When asked if the government provided any additional support during the time the shutdown coincided with demonetisation, all respondents who resided in the Imphal valley replied that no such support was offered.

⁷² Reserve Bank of India. (2016, November 8). *Withdrawal of Legal Tender Status for ₹ 500 and ₹ 1000 Notes: RBI Notice* [Press release]. Retrieved May 12, 2018, from https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=38520

⁷³ Here is what PM Modi said about the new Rs 500, Rs 2000 notes and black money. (2016, November 8). *India Today*. Retrieved May 12, 2018, from <https://www.indiatoday.in/india/story/live-pm-narendra-modi-addresses-nation-350943-2016-11-08>

⁷⁴ Pacheco, A. D. (2016, December 3). The dire consequences of India's demonetisation initiative. *The Economist*. Retrieved May 12, 2018, from

<https://www.economist.com/news/finance-and-economics/21711035-withdrawing-86-value-cash-circulation-india-was-bad-idea-badly>

6. Loss of work hours and productivity

A respondent bore the monetary expense and inconvenience of travelling to and fro Guwahati in the neighbouring state of Assam to be able to use the Internet for a recruitment interview:

"...I use Internet a lot. [I] Was totally blank when there was no Internet. Thankfully, phone calls were working. I had a Skype interview then [for a job position] and I had to rush to Guwahati just to do the interview."

Another stood the risk of losing the license to run her organisation, apart from facing hardship:

"During this period only BSNL connection was working. We had to submit the stipulated FCRA⁷⁵ documents. If we did not file these documents, our licenses [to run the NGO] would be cancelled. During the same period, there was no Internet. Neither dongles nor mobile Internet was working. I had to then go to my cousin's place and use their Internet. It was hard that we had to file them [documents] online and [in] no other way. I managed to do it in the end after a lot of struggle."

One respondent spoke of losing project time and work hours:

"Because of the shutdown, we could not contact new recruits and trainees who were supposed to join the organisation."

Responses that additionally indicate that BSNL services continued to operate:

"I could not go out of the campus where I stay, even at night. I had to send [someone] a message, so I went to a cyber cafe. That person [cyber cafe operator] told me that only BSNL was working. There were a lot of people waiting [to use the Internet]. I had to stand for a long time [in the queue] and I still wasn't able to access Internet. I had to go back [to the cyber cafe] the next day... We had no issues with food because of the availability of rice and fish and a kitchen garden."

"During this period [Internet shutdown in December 2016] only BSNL was working but it was [at] low speeds. I was able to access Facebook. But the work reports were pending. In terms of money transactions, I had no issues and nor did I have any emergency."

7. Strained personal, professional and social relationships

As in the case of mobile network services that are unreliable or of low quality (Refer to [Part 2.1 Impact on professional life](#) and [2.2 Impact on personal life](#)), Internet shutdowns caused a deterioration of communication within relationships:

"Before the [December 2016] shutdown I had started connecting with friends. I was having very good communication with them but that was disturbed due to the shutdown... It also led to us getting a BSNL broadband connection. The connection is not that great; the speed they promise is not up to the mark."

"...personal communication is important to me and the shutdowns did not help with that."

One respondent who was living outside Manipur when the shutdowns occurred said she was affected because of losing contact with her social and professional circles in Manipur.

⁷⁵ Foreign Contribution (Regulation) Act. Non-governmental organisations in India are required to submit their financial records to the government every year, failing which they could be de-registered.

Conclusion

Studying the effects of unreliable mobile networks and intentional Internet shutdowns on the lives and livelihoods of Manipuri women brought with it the challenge of ferreting out our findings while unravelling many layers of complexities that are unique to the region.

Low quality of wireless network services and Internet shutdowns had immediate and long-term negative effects on the personal, professional, social, domestic and financial lives of the respondents. Some of the most severe effects were on:

- **Finances** of individuals, small businesses and NGOs
- **Work-life balance**
- **Personal and public safety**
- **Mental health**, especially because of the compounding effect of anxieties over safety, a lack of work-life balance, the decline of personal, professional and social relationships, and the milieu of violence and unrest.
- **Disaster relief and rescue activities**
- **Rescue and support for victims of child trafficking and domestic violence**

Network coverage varies across the state. BTS, also known as mobile towers, in hill districts are scarcer and face greater shortfall of electricity. Out of 16 districts in Manipur, the hill districts of **Senapati, Chandel, Ukhrul** and **Pherzawl** have zero mobile network coverage according to data obtained at the time of writing from the Quality of Service Analytics website of the TRAI. Publicly available data about network coverage and QoS of different telecom operators provided by the TRAI, DoT and other government bodies is inconclusive because **Manipur has been bundled together with six other states under the “north east telecom circle” category in all the documents and datasets** we found.

WhatsApp and Facebook were the most popular platforms for **activism and public mobilisation**. A combination of strategies was implemented to ensure communication among social and professional circles, because the problem of poor QoS is perpetual. **SMS groups** in which the members and purpose are predefined were used to communicate with people in areas with no data network coverage and/ or lack of digital literacy (*i.e.*, some people in the circle did not know how to use email or WhatsApp or both). In places where capacity for using WhatsApp existed but not for using email, WhatsApp was the only mode of Internet communication. Some respondents harboured multiple mobile devices, SIM cards and wireless connections as a means of:

- Compartmentalising their personal and professional lives
- Maintaining devices for back-up or emergency use
- Devices or connections dedicated for specific purposes such as accessing wireless Internet
- Dedicated devices or connections for use in places within and outside Manipur where QoS of one mobile network operator were better than those of others.

Women in their twenties actively **used the Internet for gaining knowledge and learning skills that contribute to their livelihoods**.

We identified **three distinct instances of intentional Internet shutdowns**, two of which were implemented in the wake public unrest and violence. One shutdown of Internet and wireless voice services in the erstwhile newly-formed district of Kangpokpi was reportedly implemented to **prevent potential disruption of public order** during state legislature elections. A respondent from Kangpokpi mentioned a marked decrease in data speeds and inability to make or receive calls on the days of polling and ballot-counting in February 2017, indicating a possibility of **undeclared or**

surreptitious shutdowns and/ or bandwidth throttling. Food supplies were not majorly affected during shutdowns as everyone cultivates a kitchen garden, one of the many ways Manipuris have adapted to living with violence, curfews and *bandhs* over the past few decades. Another shutdown that reportedly occurred for a few hours in 2017 could not be verified.

No compensation was offered by the government to make up for losses incurred by entrepreneurs and traders during times of shutdowns. The largest **economic losses** in the time of an Internet shutdown borne by the surveyed women happened in December 2016 when the economic blockade, banknote demonetisation and state-initiated shutdown coincided.

The sentiment that intentional Internet shutdowns constitute a **violation of the freedom of speech and expression** ran strong among the respondents. The women we surveyed actively conducted **non-violent public mobilisation, peaceful protests and peacebuilding activities**, further strengthening the need to advocate for reliable access to the Internet for women's groups in the state.

Other noteworthy findings include:

- **Subscribers of state-owned telecommunications company BSNL found that its services continued to work in the time of intentional Internet shutdowns.**
- **The government did not issue a public notification about any of the three shutdowns reported in the interviews.**
- **Wired Internet and wireless voice services were unavailable in the time of wireless Internet shutdowns.** Some of the possible explanations could be surreptitious or undeclared shutdown orders issued by one or more state actors; severe network congestion because of shutdown of wireless Internet services; and the phrasing of timebound government orders being ambiguous to telecom service providers who choose to err on the side of caution.

The non-transparent use of the Internet kill-switch, the resultant economic losses, and the bleak quality of network in the state do not augur well for democracy or the government's ambitious Digital India programme. Access to information makes speech possible. The right to access to information is encompassed within the right to free speech and expression, which is vital for a thriving democracy. Apart from impinging on various freedoms and civil liberties, Internet shutdowns violate the basic human right to Internet access. As is evident from the experiences of the member of the *gram panchayat*, shutdowns initiated by the state impede, among other things, local governance itself. Official documents state that prolonged blanket shutdowns of the Internet in Manipur were implemented for curbing the spread of rumours in the time of disruption of "public order". In our opinion, countering misinformation with information and actively debunking rumours during crises would prevent the need for intentional shutdowns.

Next steps

Owing to the absence of exhaustive, credible and accessible studies on the topic of Internet access by women in Manipur, we had little to peruse by way of precedents or literature. This exercise has served as a springboard for us to chart and continue our work in the region via these steps:

- Technical and policy recommendations for government and non-government actors and civil society entities based on the findings of this preliminary study and its future phases.
- Study from the lens of our findings the Internet shutdown rules issued by the DoT, known as the [Temporary Suspension of Telecom Services \(Public Emergency or Public Safety\) Rules, 2017](#).
- A mechanism to monitor Internet shutdowns in the region via technical measurement.
- A road map to enable better network connectivity for communities in Manipur.

Annexes

Annex 1: *Proforma* consent form

The format of the consent form that was signed by the participants of the workshop who were also interviewed.

Introduction and Purpose

We would like to invite you to take part in our research on the use of the Internet and mobile phone by women in Manipur. This is an exploratory study and it can enhance women's access to knowledge media, communications, economic empowerment and relief from gender-based violence.

Procedures

You agree to participate in this research by attending this closed-door meeting held at [redacted location] on [redacted date]. We will note your comments, interventions and responses during the meeting and also conduct face-to-face interviews with you in person at a time and location of your convenience.

The interview will involve questions regarding your use of mobile phones and the Internet while residing in Manipur.

The interview would last about half an hour, but the duration will ultimately depend on your personal availability and willingness. With your permission, we record the interview audio and take notes. The recording is meant to accurately document the conversation, and will be used for transcription purposes only. If you agree to being audio-recorded, but feel uncomfortable at any time during the interview, we can turn off the recorder at your request. If you don't wish to continue, you can stop the interview at any time.

Confidentiality

Your study data will be handled as confidentially as possible and with utmost regard for your privacy in light of the situation in Manipur. All interview recordings and notes will be protected through encrypted files, with password protected devices of which only we will have direct access to. When the results of this study are published or presented, individual names and other personally identifiable information (e.g., employer's name) will be anonymised or pseudonymised.

We will delete the audio records immediately after transcription. When the research is completed, we may save the tapes and notes for future use, such as peer review, but will only retain these records for up to three months after this study is over. The same measures described above will be taken to protect confidentiality of this study data.

You are requested to keep information about your participation in this meeting confidential till the findings of the study are published. In this context, we refer to "confidential" to the extent of writing about it on social media websites and portals; newspapers, other news outlets, and blogs, and speaking about it at public or closed-door events.

Compensation

You will not be paid for taking part in this study.

Rights

Participation in the research is completely voluntary. You are free to decline to take part in the project. You can decline to answer any questions, and are free to stop taking part in the project at any time. Whether or not you choose to participate in the research, and whether or not you choose to answer a question, there will be no penalty to you or loss of benefits to which you are otherwise entitled.

You will receive a copy of a draft prior to publication to ensure your views are accurately presented.

Questions

If you have any questions about this research, please feel free to contact us. We can be reached via email at **theteam@thebachchaoproject.org**

Consent

If you wish to participate in this study, please sign and write the date below.

Participant's Name

Signature

Date

Annex 2: Protocol for the workshop

The event is designed to be an interactive and candid exercise. All attendees are encouraged to participate in their own personal capacity. Discussions that happen during this workshop event are confidential and no one should be quoted nor their identity or institutional affiliation be revealed without that individual's explicit permission.

Photography and video recording are not permitted in this meeting. The facilitators may take contextual photographs with no people in the frame. Those photographs will not be published until we publish the findings of this workshop.

The list of participants and their employers/ affiliated organisations will not be circulated with anyone other than those who attend the event.

Report

A draft copy of the event report will be shared with all participants before it is published. We will not attribute views or direct quotes to any participant or compromise the privacy of anyone in this report. We have taken utmost care as mentioned in the consent form to protect the privacy of all participants and organisers.

Private circulation of lessons

We understand that you may want to share your lessons from the event with your colleagues and other organisations and that doing so may be important to you. We recommend that you take care while sharing this information. Use the recommended methods of sharing, anonymise the text and remove private conversations or any personally identifiable information. It would be ideal if you could share this information with your colleagues and associates in person in a private space.

Public sharing of learnings

Please do not post online updates about this event online or the conversations from the event online (tweets, posts, blog posts, and so on). Please do not check-in to social networking websites from the event venue. This is important to protect the privacy of everyone present.

Annex 3: Research questions

1. What do women entrepreneurs and women activists located in Manipur use the mobile phone and the Internet for?
 - a. What devices do they use to access the Internet? Who owns those devices? (Mobile devices such as smartphones, feature phones, basic mobile phones and tablets; mobile devices shared with one or more members of the family; other networked devices such as Ethernet routers)
 - b. Over the past 40 years, that is, since 1977:
 - i. How has their access to the Internet changed?
 - ii. How has their access to mobile communication devices changed?
 - c. Is there a difference between usage of mobile devices that are Internet-enabled and those that are not?
 - d. Are there limitations or barriers to their access to the Internet and mobile networks?
 - i. If yes, what are those limitations or barriers, as articulated by them?
 - ii. What do they do to circumvent or overcome those barriers?
 - e. What are the software applications they use on their Internet-enabled devices?
2. Are there documented and verifiable instances of intentional shutdowns of the Internet and/ or mobile networks in Manipur?
 - a. If yes, what was the nature of these shutdowns in terms of their time of occurrence, duration, scope, location within Manipur, type of Internet technology (*i.e.*, wireless Internet, wired broadband, mobile voice networks), and the reasons cited, or lack thereof, for implementing the shutdowns?
3. How are the personal, professional, and social lives of women in Manipur impacted and affected by temporary, intentional shutdowns of the Internet and/ or mobile networks?
 - a. How do the affected women overcome or mitigate negative effects of shutdowns, and what tangible steps have they taken or considered taking?

Annex 4: Abridged literature survey

Full text: <http://thebachchaoproject.org/literature-survey-of-sieges-and-shutdowns>

While the high number of intentional Internet shutdowns in India has been a topic of much research and advocacy, there is little information to shine a light on sensitive, conflict-ridden geographies within India and from the lens of gender. There is also little by way of credible literature, academic or otherwise, available on the Internet in the English language about the use of ICTs by Manipuri women. Similarly, we were unable to find academic scholarship on the effects of intentional Internet shutdowns on the lives of the people of northeast India in general or Manipur in particular. Apart from three scholarly publications, this literature survey has been drawn from material for advocacy and awareness published by NGOs and news articles and reports by media outlets.

Use of the mobile phone and Internet by low-income groups

[Partially corresponding research question: What do women entrepreneurs and women activists located in Manipur use the mobile phone and the Internet for?]

As net state domestic product (NSDP) and per capita income in Manipur is among the lowest in the country⁷⁶, it may be worthwhile to explore how low-income populations in India and other developing countries use the mobile phone and the Internet. The socio-political milieu pervading Manipur for the past four-odd decades has hampered economic development, which is why the use of ICTs by the financially poor in India and elsewhere could be considered a topic relevant to our study.

Elder *et al* (2013) conducted household surveys in 38 developing countries in Asia, Africa and Latin America to know how the financially poor use ICTs and how they benefit from having access to mobile devices, computers, and the Internet. India was among the countries surveyed. (The paper does not contain case studies or findings specifically attributed to Manipur.)

Crucial benefits and uses of mobile phones among the poor:

In the surveys conducted by Elder *et al*, the primary use of mobile phones among the poor was for social interactions but potential emergencies ranked high as the main reason for them purchasing a handset.

Business: The greatest economic benefit derived from the use of the mobile phone by business owners was saving time and money on transportation and procurement. Business owners could achieve faster turnaround time in procurement and in responding to clients. Other benefits for them included being able to reach a wider network of customers, thus increasing their revenues. Small and medium businesses gained more when their potential customers accessed the Internet.

Banking: The use of Internet-enabled mobile phones enables the use of “mobile money”, which suits the needs of the poor who may not be able to access conventional banks.

Healthcare: The poor use telemedicine services, especially in far-flung areas, where they cannot access healthcare services and cannot afford to travel to access them.

Social capital: Social capital and currency are gained from staying connected to social circles.

⁷⁶ *Supra* note 21.

Access to avenues of income: Social exchanges help them stay in the know about opportunities for employment or earning an additional income.

Crises/ emergencies: The poor seek help from their social circles in the time of emergencies, especially when state-run emergency services are not available or accessible to them.

While the above effects may occur in all strata of society, it may be inferred that intentional Internet shutdowns affect economically marginalised and vulnerable populations to a greater degree as these populations do not have easy access to alternatives.

Economic costs of Internet shutdowns

[Corresponding research question: How are the personal, professional, and social lives of women in Manipur impacted and affected by temporary, intentional shutdowns of the Internet and/ or mobile networks?]

Darrell M. West (2016) examined instances of Internet shutdowns that had occurred in 19 different countries from July 1, 2015 to June 30, 2016 and found 81 disruptions, 22 of which had happened in India. The total number of days of Internet shutdowns in India was pegged at 70.54 and total gross domestic product (GDP) lost by the country due to shutdowns at approximately USD 968 million, which was the highest among the surveyed countries. West sourced this information from news reports and lists of shutdowns compiled by not-for-profit organisations.

West defined a shutdown as the occurrence of one or more conditions out of three:

- Temporary shutdown of all Internet that occurred locally or nationally
- Temporary shutdown of mobile Internet that occurred locally or nationally
- Temporary blocking of specific applications and/ or service, locally or nationally

Six different formulae were used to estimate the economic impact of different types of Internet shutdowns on national GDP. West refers to the amounts of economic losses incurred by the different countries as “conservative estimates” that reflect only the reductions in economic activity.

Incidents of Internet shutdown in India (2010 Onwards)

[Corresponding research question: Are there documented and verifiable instances of intentional shutdowns of the Internet and/ or mobile networks in Manipur?]

According to a compilation of incidents of Internet shutdowns in India published by the Centre for Communication Governance (CCG, 2017), there are two documented instances of shutdowns in Manipur. One occurred from September 1 to 8, 2015 when all Internet services were stopped owing to the circulation of “provocative remarks and photos, which had the potential to ignite communal violence in the state”. It is one of the 22 Indian shutdowns mapped by Darrell West (2016). The other lasted from December 17 to 30, 2016 in East Imphal and West Imphal districts after all wireless Internet services were shuttered to thwart the circulation of rumours via the Internet. Imphal was then facing public security concerns in light of an economic blockade called by the United Naga Council (UNC), a collective of Naga peoples in Manipur.

At the time of writing, CCG’s compilation records incidents of shutdowns from the year 2010 to May 29, 2017. Like Darrell West, CCG compiled information about shutdowns from news reports in the English-language media. In some cases CCG also obtained information from or about official orders released for the shutdowns.

Shutdowns tracker: InternetShutdowns.in

[Corresponding research question: Are there documented and verifiable instances of intentional shutdowns of the Internet and/ or mobile networks in Manipur?]

According to InternetShutdowns.in, 129 shutdowns occurred in India from January 2012 to December 2017, of which 70 happened in the current year (2017) alone. The tracking website [states](http://InternetShutdowns.in) that owing to the lack of public notices by the government about the imposition of shutdowns, it sources its data from newspaper reports and from people who are directly affected by network disruptions.

As of December 31, 2017, it shows that two shutdowns have occurred in Manipur: One imposed in the Imphal East and Imphal West districts on the orders of the respective District Magistrates, lasting for 12 days from December 18 to 30, 2016 and another in Churachandpur district starting from September 2, 2015 and ending at an unspecified date. It is pertinent to note that both mobile Internet and wired broadband Internet were reportedly shut down in Churachandpur with the exception of some subscribers of BSNL for whom it continued to function.

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Annex 5: Abridged research methodology

Full text: <http://thebachchaoproject.org/research-methodology-of-sieges-and-shutdowns>

Objective

The objectives of this study are to qualitatively determine:

- The usage of the mobile phone and the Internet among activists and entrepreneur women in Manipur for personal, professional and social purposes and in disaster situations.
- How low quality of services (QoS) of networks affect the lives and livelihoods of the surveyed women
- How intentional shutdowns of the Internet and/ or mobile networks affect the surveyed women
- The steps the surveyed women take to mitigate or prevent the negative effects of intentional shutdowns and unreliable mobile networks on their lives.

For the sake of brevity, the term “mobile phone” in this study includes all wireless communication devices such as tablets, phablets, smartphones and feature phones.

Object

A survey sample comprising 16 women activists and entrepreneurs residing in Manipur. These women locate themselves in different areas of women’s empowerment.

Criteria for selecting survey respondents

- We invited 20 women entrepreneurs and activists who were natives for Manipur belonging to different districts, ethnic groups and tribes, religions, economic classes, formal academic backgrounds, professions and ages. The size of the survey sample was restricted to 20 because it was the first and preliminary phase of the study.
- 16 were available to take in-person interviews and attend the two-day exploratory workshop.
- We identified and invited potential respondents through a circle of trust because we (the research team) do not belong to the region. There is often a trust deficit among peoples in northeastern India towards peoples that do not face the same challenges.

Demographic composition of the surveyed sample

Refer to [Annex 6](#).

Rationale

[Corresponding research questions: 1. What do women entrepreneurs and women activists located in Manipur use the mobile phone and the Internet for?

3. How are the personal, professional, and social lives of women in Manipur impacted and affected by temporary, intentional shutdowns of the Internet and/ or mobile networks?]

The findings of this study would enable us, other researchers, and relevant stakeholders to:

- Make technical and policy recommendations for government and non-government actors and civil society entities.
- Study from the lens of Manipur the Internet shutdown rules issued by the DoT, known as the [Temporary Suspension of Telecom Services \(Public Emergency or Public Safety\) Rules, 2017](#).
- Develop a mechanism to monitor Internet shutdowns in the region via technical measurement.

- Create a road map to enable better network connectivity for communities in Manipur.
- Reasonably extrapolate the research results to similarly vulnerable and/ or marginalised populations.

[Corresponding research question: 1. b. Over the past 40 years, that is, since 1977:

i. How has their access to the Internet changed?

ii. How has their access to mobile communication devices changed?]

The respondents are in the age bracket of 20 to 60 years and the study was conducted in late 2017. So the oldest experiences of using telecom devices and services in Manipur are likely to date back to 40-odd years, that is, until circa 1977.

Method

[Corresponding research questions:

- 1. What do women entrepreneurs and women activists located in Manipur use the mobile phone and the Internet for?*
 - a. What devices do they use to access the Internet? Who owns those devices? (Mobile devices such as smartphones, feature phones, basic mobile phones and tablets; mobile devices shared with one or more members of the family; other networked devices such as Ethernet routers)*
 - b. Over the past 40 years, that is, since 1977:*
 - i. How has their access to the Internet changed?*
 - ii. How has their access to mobile communication devices changed?*
 - c. Is there a difference between usage of mobile devices that are Internet-enabled and those that are not?*
 - d. Are there limitations or barriers to their access to the Internet and mobile networks?*
 - i. If yes, what are those limitations or barriers, as articulated by them?*
 - ii. What do they do to circumvent or overcome those barriers?*
 - e. What are the software applications they use on their Internet-enabled devices?*
- 3. How are the personal, professional, and social lives of women in Manipur impacted and affected by temporary, intentional shutdowns of the Internet and/ or mobile networks?*
 - i. How do the affected women overcome or mitigate negative effects of shutdowns, and what tangible steps have they taken or considered taking?]*

Random sampling and quantitative surveys were ruled out as methods because this was an exploratory study conducted to chart and define the landscape for future phases of research. Additionally, the possibility of getting partial, reserved or inconclusive responses because of the trust deficit towards outsiders made it necessary that the researchers interact with all surveyed women in person. As a result, the survey was conducted over two steps:

1. An interactive workshop for the researchers and surveyed women
2. In-person interviews that were later anonymised

Interactive workshop

The two-day interactive workshop was conducted by the research team:

1. For the research team and the surveyed women to get acquainted with each other in a safe space and an environment of trust while minimising potential fears of their privacy and security being jeopardised.
2. To transparently establish the need and context of the study before administering the interview questionnaire
3. To make available to the workshop participants an uninhibited space they could freely speak about their lived experiences in a group.

4. To delineate the needs of the workshop participants in terms of their digital rights. *E.g.*, All participants requested one or more training sessions on digital security.

All participants were required to sign a consent form (*Annex 1: Proforma consent form*) at the beginning of the workshop as a prerequisite to attend the workshop. The contents of the consent form as well the protocol (*Annex 2: Protocol for the workshop*) were explained to them and they were urged to put forth their queries. For all ethical considerations in the survey activities, refer to *Ethical considerations* and *Challenges*. Questions that could either elicit deeply personal replies or potentially slant the perception of the group were left out of this step and included in the survey instrument.

The workshop was designed in keeping with the cultural, social, economic, and political contexts of the state. The results may not be reproducible if the design of the interactive workshop and the overall method of survey are applied to other populations who do not live in the same or similar contexts. The design of the workshop has been published at <http://thebachchaoproject.org/workshop-design-for-feminist-investigation-of-access>

Survey interviews

The survey questionnaire was administered in this step. Each participant of the workshop was interviewed individually and in a private space. All interview responses were recorded in November 2017.

Survey instrument

Refer to *Annex 7*.

Anonymisation

All responses were anonymised. Potential personally-identifiable information was redacted.

Validation of findings

One of the respondents gave some answers that were inconsistent with each other. Those responses were discarded.

All events relevant to the study and mentioned by the respondents were corroborated using reliable sources such as credible news reports, research reports, and government orders.

Analysis of findings

After the validation stage, the responses recorded during the workshop and in the transcripts from the interviews were analysed for possible patterns. Different categories were identified:

- Use of WhatsApp and Facebook for activism and public mobilisation
- Respondents' awareness of being surveilled
- Use of the Internet and mobile devices for entertainment
- For research and education
- For personal purposes
- For professional purposes
- For activism
- Impact of low and unreliable QoS on professional life (8 sub-categories)
- Impact on low and unreliable QoS on personal life (3 sub-categories)
- Use of mobile devices and the Internet during disasters and natural calamities
- Consumer awareness about poor QoS
- Use of multiple mobile devices and connections
- Lived experiences during intentional shutdowns
- Unexpected uptime of BSNL services during intentional Internet shutdowns

- Effects of shutdowns
 - Economic losses
 - Personal and public safety
 - Sentiment against the violation of the freedom of speech and expression and right to access the Internet
 - Emotional well being
 - Lack of state support during natural disasters and other emergencies
 - Experiences from the time of banknote demonetisation, 2016
 - Loss of work hours and productivity
 - Strained personal, professional and social relationships

Literature survey

2. Are there documented and verifiable instances of intentional shutdowns of the Internet and/ or mobile networks in Manipur?

- a. If yes, what was the nature of these shutdowns in terms of their time of occurrence, duration, scope, location within Manipur, type of Internet technology (i.e., wireless Internet, wired broadband, mobile voice networks), and the reasons cited, or lack thereof, for implementing the shutdowns?

3. How are the personal, professional, and social lives of women in Manipur impacted and affected by temporary, intentional shutdowns of the Internet and/ or mobile networks?

These questions have been answered via a literature survey:

<http://thebachchaoproject.org/literature-survey-of-sieges-and-shutdowns>

1. What do women entrepreneurs and women activists located in Manipur use the mobile phone and the Internet for?

The literature survey partially answers this question as the surveyed text *Information lives of the poor: Fighting poverty with technology* only pertains to low-income groups.

Limitations

Selection bias

The method of selecting respondents introduced a selection bias in the sample. (Refer to “Criteria for selecting survey respondents”.) As a result of an unavoidable trade-off between selection bias and the possibility of receiving distrustful, reticent or inconclusive responses, the former was chosen.

Lack of corresponding technical investigation

Some responses about the quality of services (QoS) of different mobile network operators can only be corroborated via technical measurements. The preliminary nature of the study did not allow for such investigation. Hence, those responses have been treated as anecdotal evidence. We also could not contact the operators for their stand on the issue of poor QoS because of various constraints posed by the preliminary nature of this study.

Lack of acquaintance with local language(s)

- The research team did not possess knowledge of the local languages. The designated translator and interpreter for survey activities was not a professional.
- The research team could not search for and peruse offline and online literature and reliable sources in the local languages in order to corroborate or verify information or to obtain necessary context.
- The research team could not hire an additional researcher who had knowledge of one or more local languages as it was a pilot study and the team could not be expanded.

Annex 6: Demographic composition of surveyed group

Sixteen respondents were surveyed.

Ethnicity and religion

The respondents belonged to the Meitei, Naga, Kuki and Pangal ethnic groups and followed Hinduism, Islam and Christianity.

Language

The participants were native speakers of either Meiteilon or Khoibu or Thadou. All but three respondents possessed working knowledge of the English language. Some also spoke Hindi.

Age

The respondents were between 20 and 60 years of age.

Gender

All respondents identified themselves as cisgender women.

Location

All respondents were natives of Manipur residing in hill or valley districts.

Profession

The respondents comprised entrepreneurs, activists, NGO workers and other professionals. The entrepreneurs owned food processing units, poultry farms, handloom and textile units, weavers' cooperatives, and franchises doing retail sale of cosmetics. Activists and NGO workers in the group mainly worked in the domains of health, women's rights, gender justice, economic independence for women, and access to education. They identified themselves as trainers, rescue workers (abuse and trafficking), human rights defenders, RTI (right to information) activists, and researchers. Some activists and NGO workers were also entrepreneurs or employed gainfully in freelance jobs outside the not-for-profit sector. Some entrepreneurs practised more than one trade, running different small businesses.

Additionally, the group consisted of an elected member of a *gram panchayat* and women practising weaving, veterinary medicine, and accountancy.

Education

Members of the respondent group had completed different levels of formal education: High school or lower, Bachelor's degree, Master's degree, or Doctoral degree or professional degree(s).

Annex 7: Survey instrument

1. Which of these devices do you use?
 1. Personal devices such as smartphones, other kinds of mobile phones, laptops and desktop computers
 - a. What brand of phone do you use?
 - b. What mobile operating system do you use?
 - c. When did you buy your mobile phone?
 - d. Where did you buy your mobile phone(s)?
 2. Network infrastructure devices such as routers
2. What company's SIM card(s) do you use?
 1. What SIMs do you use for [accessing the] Internet?
 2. Is it a prepaid or postpaid SIM?
 3. How much do you spend on mobile Internet per month?
 4. Do you use more than one SIM card?
 - a. What do you use multiple SIM cards for?
3. Which of these services do you use? (Yes/ No)
 - WhatsApp
 - Facebook
 - Twitter
 - Instagram
 - LinkedIn
 - Pinterest
 - YouTube
 - Gmail
 - Yahoo Mail
 - Blogging platforms
 - Microloan websites
 - Crowdfunding websites
 - Alibaba [If yes, to buy or sell or both?]
 - AliExpress [If yes, to buy or sell or both?]
 - e-Stores [Examples for respondents who do not know what an e-store is: Ebay and Etsy.]
 - Online shopping
 - Enterprise software
4. Do you make payments or send anybody money via mobile?
5. What kind of technologies do you regularly use for your work?
6. Are you the only person who uses your mobile phone?
7. Are you the only person who uses your laptop/ computer?
8. How is your personal and social life affected when the Internet does not work?
9. How is your professional life and business affected when the Internet does not work ?
10. Could you tell us about your experiences from the December 2016 economic blockade in Manipur?
 1. In the past 3 years have you experienced any other Internet or mobile shutdowns?

11. Have you ever tried complaining to the telco or service provider when the Internet does not work? If yes, what was the response you received?

12. During the earthquake and the floods that happened in Manipur, did you use the Internet or the mobile phone to reach to safety or get other people rescued or to get other people to safety?

Annex 8: Corrigendum

An error has been fixed in the text of the report as of December 2018. In **5.3. Government data** (Page 31), the Ministry of Communications and Information Technology was incorrectly referred to as the Ministry of Electronics and Information Technology.

GenderIT.org published a review of this report on December 6, 2018:

<https://www.genderit.org/articles/how-internet-shutdowns-affect-lives-women-manipur>.

Journalist Ninglun Hanghal writes in the review, *“The study report stated that there is no information regarding internet shutdowns. This is a bit of an exaggeration and contradictory. While it mentioned “No public notification issued on shutdowns”, it also mentioned (in page 32) that from 17 to 30 December 2016, all operators of wireless internet service provider were prohibited in East and West Imphal by order of District Magistrate to restrain the circulation of rumours. Daily newspapers, local TV channels [reported about the shutdown orders](#) and information are going viral on social media – specifically Facebook and WhatsApp. Therefore, it cannot be said that the general public is unaware or uninformed.”*

In response to her observations, we have rephrased the sentence “No public notification was issued about the shutdowns” to “The government did not issue a public notification that it had implemented the shutdown” (Sections entitled “Economic blockade, December 2016” and “Violence in Churachandpur, September 2015”).