

# Status Report on Broadband and Broadcast Access in the State of Madhya Pradesh

(Understanding Digital Divide)



Vikas Samvad

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**(Understanding Digital Divide)**

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**Abstract** : The present study attempts to understand the awareness, access and use of digital technology in the urban (slum) and rural (village) communities in five districts of Madhya Pradesh. The study also glances the factors that influence the access and use of digital technology and responsible for the existing status in the research area. Digital technology in the context of this study refers to mobile phones, digital television and Internet technology.



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# GLOSSARY

**Respondent** - Head of the household, an adult person and decision maker in the family. However, responses were carried incorporating all adult members holistically.

**Urban community/ies** - The report here refers to the slum communities or settlements in urban research areas.

**Urban households** - The urban households in the study refer to the households in urban slum communities.

**Rural Community/ies** - The rural community in the study refers to the village communities in rural research areas.

**Rural households** - The rural households in the study refer to the households in rural village communities.

**Priority Households** - On the premise of certain indicators a household in the research areas was treated as a priority household for the purpose of this study. The indicators of a priority household are as follows:-

- ▶▶ A household belonging to a religious minority group (Muslim, Christian, Sikh, Jain, Bodh)
- ▶▶ A household having a member who is physically or mentally challenged.
- ▶▶ A household headed by a woman.
- ▶▶ A household with only one member who is a female.
- ▶▶ Old and Destitute households

**Households not surveyed** - Some Households were found to be unoccupied, not willing to share the information, migrated to some other place for work and thus were unavailable for sharing information at the time of the study.

**Working Women** - Women, involved in any kind of economic activity with or without compensation, wages or profit.



**Mobile Phone User Household** - A household with at least one mobile phone.

**Mobile Phone User** - A person having an independent mobile phone device with an activated sim card or a sim card holder. The sim card holders were treated as mobile phone users as often in the field the people were known to have sim card which they on need would insert in some known's mobile phone and use it for communicating.

**Mobile Phone expenses** - Payments made on phone calls, Short service message, battery charging, downloading wallpapers/ songs/ videos etc on a particular SIM card/Device used by a person or shared in a family in a telecommunication network.

**Internet user household** - A household with internet connection either via mobile phone or via computer using dongle/broadband.

**Internet User** - Internet user may not necessarily have internet connection at home and may access it from some other points such as internet café', Mp online, Community service centre, school, workplace, mobile phone, friends or relatives house.

**Broadband** - A data connection that is able to support interactive services including internet access and has the capability of minimum download speed of 512kbps to an individual subscriber from the point of presence (POP) of the service provider intending to provide broadband service.

**No Connection** : Household having no digital TV connection.

**Digital TV Connection** : Two connections were reviewed as Digital TV connection, the Dish TV often referred to as DTH and Digital Cable TV supported with a set top box referred to as Set top box connection by the people in the research areas.

**Analog TV Connection** : The wired cable connection, DD1 spiral antenna and television with no connection were clubbed into a category of analog TV connection.

**Standards of quality of services (Broadcast)** - As per DIGITAL ADDRESSABLE CABLE TV SYSTEMS REGULATIONS, 2012 and THE DIRECT TO HOME BROADCASTING SERVICES (STANDARDS OF QUALITY OF SERVICE AND REDRESSAL OF GRIEVANCES) (AMENDMENT) REGULATIONS, 2009 from TRAI.





# CHAPTER 1

## About the study

### Background

India is a country endowed with a rich pool of natural resources. However, the unequal access and disproportionate distribution of these resources has led to a range of socioeconomic inequalities among the population. As the data indicate, 22% of the country's population is below poverty line<sup>1</sup>, 26% of the population is illiterate and 32.8% of the households are off the power grid<sup>2</sup>. Even today many parts of India remain deprived of basic infrastructure and services like electricity, education system, health facilities, transportation means and communication system. Further, it is known that the areas where people are deprived of the basic amenities essential for the wellbeing of an individual, are either geographically distant or remote in rural and tribal settings or are largely inhabited by marginalized and weaker section of the society.

Several efforts have been made over the years to remove social inequalities and bridge the socioeconomic gaps. Introduction of concepts of reservations and other provisions of prioritizing the marginalized social sections of the society like Scheduled Caste (SC), Scheduled Tribe (ST) and Other Backward Classes (OBC) are examples of some major policy initiatives<sup>3</sup>. Despite this, the social inequalities still persist in the country and continue to impact the country's capacities to harness the full potential of its people.

These socioeconomic inequalities have affected the uniform adoption of digital technologies causing unequal dispersion of digital sources of information and communication. The digital technology holds immense potential to enable the underserved and marginalized sections of the society and provides a means to stay informed and hence contribute in nation's development. Nevertheless, while evaluating this potential of the digital technology, it is known that primary requisite of putting up an effective and sustainable infrastructure to ensure equal access to the technology has not received due attention. This is why the technology instead of narrowing the extant socio-economic disparities further intensified them.

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<sup>[1]</sup> Planning commission (2011-2012) using Tendulkar Methodology

<sup>[2]</sup> Census of India, 2011

<sup>[3]</sup> Drèze, J., & Sen, A. (2002). Democratic practice and social inequality in India. *Journal of Asian and African Studies*, 37(2), 6-37.

The authorities like TRAI and many other independent private agencies release status of broadband and broadcast access at various levels. The gaps with respect to understanding the penetration and status of access to digital sources of information and communication among marginalized sections of the society are perceptible. However, not much effort has been made in to seek to understand the same.

Thus, the present study attempts to document the status of broadcast and broadband access and associated problems among marginalized sections of the society residing in urban and rural areas of five districts of Madhya Pradesh.

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# CHAPTER 2

## Conceptual Framework & Schematic Design of Research Study

### A. Purpose of the study

To research, report and disseminate on broadcast and broadband access for the poor (marginalized sections) in the state of Madhya Pradesh so as to inform the policy making process towards securing an equal and wider digital access.

### B. Objectives

1. To map various digital sources available in the study area.
2. Assess the availability of broadband, broadcast facilities and service providers in the working area.
3. Analyze the use of various models of digital communication.
4. Study the quality and cost effectiveness of digital technology and satisfaction of its users.
5. Initiate a debate on the fundamental right of access.

### C. The Survey Period

The research study was conducted over a period of two years from 1<sup>st</sup> December, 2012 to 30<sup>th</sup> November, 2014.

### D. Reference Period

The data collection tools were developed; field tested and finalized post the requisite modifications during the initial four months of the study period, i.e. December, 2012 to March 2013. Thereafter, the exercise pertaining to data collection, verification and validation was completed in the next 8 months; from April,

2013 to March, 2014. Thus, the emerging estimates of the households in this research pertain to the first year and half of the study period - from December, 2012 to March, 2014.

## E. Scope and Coverage

- a. **Geographical Coverage** : The research covered three rural and two urban districts of Madhya Pradesh. Whilst Panna, Jhabua and Dindori comprised the rural sub-set of the study, Indore and Bhopal districts formed the urban sub-set.

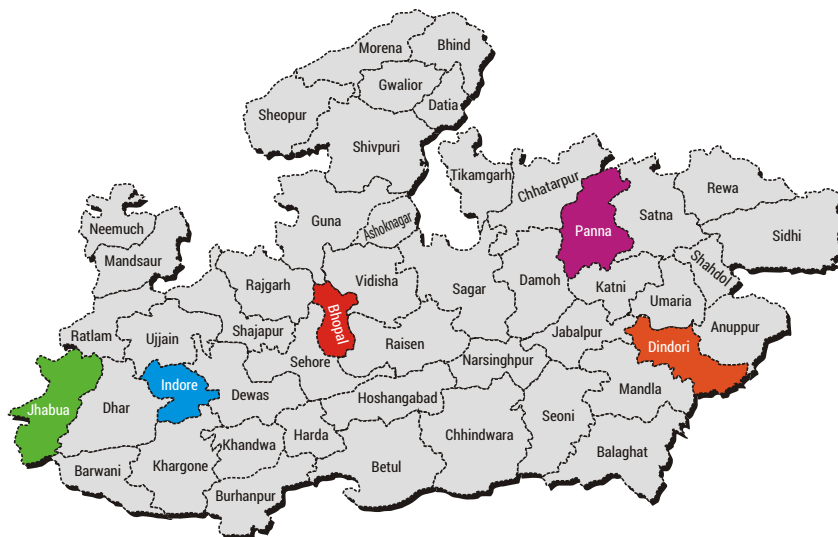
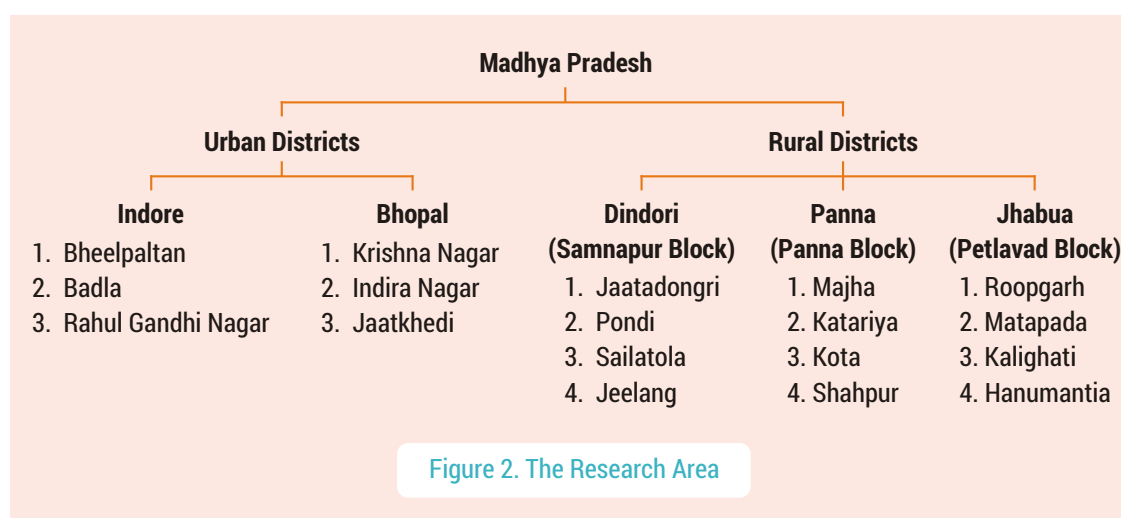


Figure 1 : Map showing districts selected for research study

Source : [http://www.mp.nic.in/images/mp\\_completed51.gif](http://www.mp.nic.in/images/mp_completed51.gif)

- b. **Social Coverage** : Regions with comparatively higher population density of marginalized sections of the society were selected as the research sites. Hence, slum communities in urban areas and the tribal dominant villages comprised the research sites for the purposes of this study.



Thus, a total of 18 community settings formed the location of the research.

## F. Research Design

The study was conducted in four consecutive parts as follows :

- a. Community profiling and mapping :** A comprehensive description of the resources and amenities as existing in each of the communities was carried out. These were prepared by using tools like Focused Group Discussions (FGDs) and Appreciative Inquiry (AI). The profiles prepared are a compilation of geographical, social and economic status of the research area. The FGDs focused on the following aspects and issues of concern :-
  - i. Social and economic situation of the community.
  - ii. Status of access to basic services including water, health services, education, livelihoods; social security etc.
  - iii. Status of Broadband / internet services in the village / (along with) the quality of service.
  - iv. Status of Broadcast services in the village / (along with) the quality of service.
  - v. Status of mobile communication services / (along with) the quality of service.
  - vi. Infrastructure for Internet, Broadband, Mobile and Broadcast services.

The maps for each of the 18 communities were prepared by the field teams along with community participation. All the structures present in a village/community were marked on the map using specified symbols. Four types of maps were prepared for each of the community as follows :

- i. Socio-economic map
- ii. Mobile phone penetration map
- iii. Broadcast and television penetration map
- iv. Internet penetration map

- b. Baseline Survey :** A baseline survey was conducted to understand the socio-economic status and identify the digital sources of information available in the research areas.
- c. Sample Survey :** The sample survey was carried out to gain an insight in to the use patterns and problems associated with the digital sources of information which emerged from the baseline survey.
- d. Women Survey :** This survey especially focused on use and communication of digital sources by the women across the select communities.

## G. Research Unit

Household was treated as a research/study unit for the baseline and sample survey. Individual women formed the research /study unit in the women's survey.

## H. Sample Size

- i. **Baseline Survey :** Out of a total of 4642 households comprising the population of the select 18 communities, as many as 4270 (92%) were covered in the baseline survey of the research study. These covered households included 62% from the urban area whilst the rest 38% were from the rural area. The overall 8% of the households which were not covered included those which were either found to be unoccupied or had migrated elsewhere or were unwilling to participate in the survey.
- ii. **Sample survey :** Sample was drawn in two steps. In the first step, 20% of the total households enumerated in the research area were surveyed using simple random sampling technique. Further, 5% of the priority households identified from the baseline survey were added if they had not been included in the 20% of the households sampled earlier. The intent was to ensure equal representation of households of all types of socioeconomic characteristics which were residing in the research area. Consequently, a total of 1031 households were studied in a sample. It may be mentioned here that the proportion of urban and rural households remained intact at 62:38 in the sample size.
- iii. **Women Survey :** The women survey comprised 30 women drawn from each of the 18 communities. Thus, a total of 540 women were interviewed including 360 women from amongst the 12 rural communities and 180 women from amongst the 6 urban communities.

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# CHAPTER 3

## Results

### PHASE 1 - BASELINE SURVEY

#### 1. Aim

The aim of the baseline survey was two-fold. Firstly, it sought to map out the community from a socio-economic perspective. Secondly, the survey aimed to identify the digital sources of information and communication as are owned by the households in the community across the socio-economic strata.

#### 2. Study Unit

The households constituted the study unit.

#### 3. Number of Households Studied

The survey captured 4270 households from amongst a total of 4642 households (92%) across the select 18 communities in 5 districts of Madhya Pradesh, 2 urban (Indore and Bhopal) and 3 rural (Panna, Jhabua and Dindori). As many as 62% of the households studied were drawn from urban areas, whilst 38% belonged to the rural setting in the baseline survey.

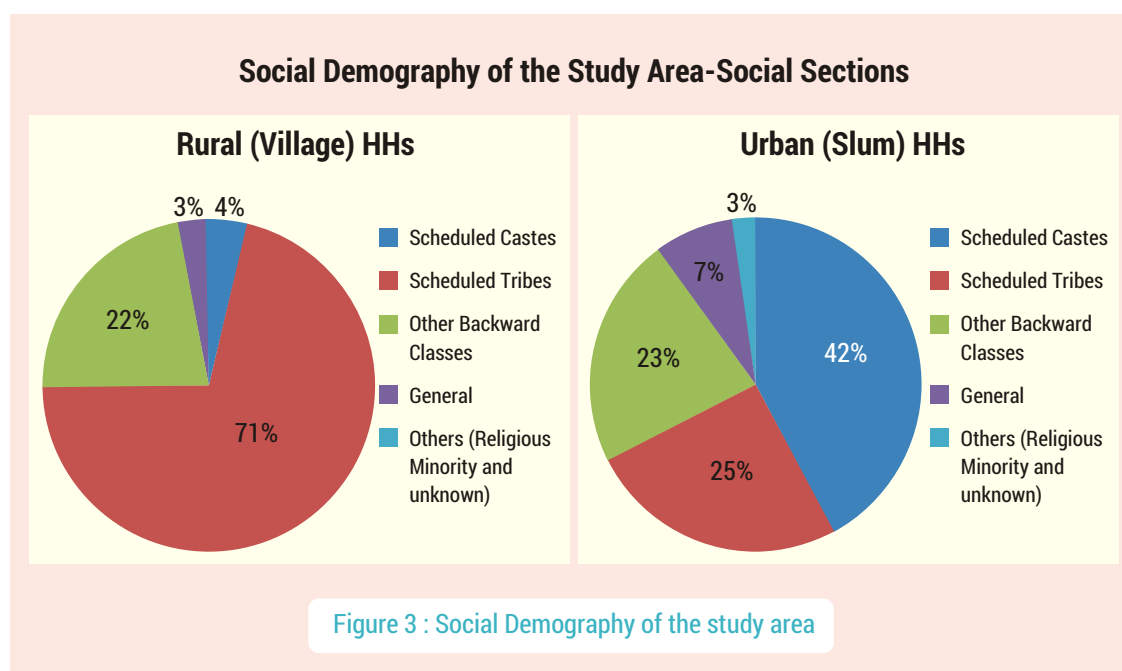
#### 4. Analysis

##### 4.1 Socio-Demographic Analysis

a. **Socio-demographic Profile :** Seeking to quantify and discern the access and use pattern of digital sources of information and communication in the community, the social classes and population were looked in to. The data results reveal a heterogeneous social composition in the study area. High variation in the social composition is witnessed in the urban areas as compared to that in the rural areas. Whilst a settlement in slum community in the urban area is home to people of different ethnic backgrounds and castes, the rural settings are seen to be characterized by a more of homogeneous

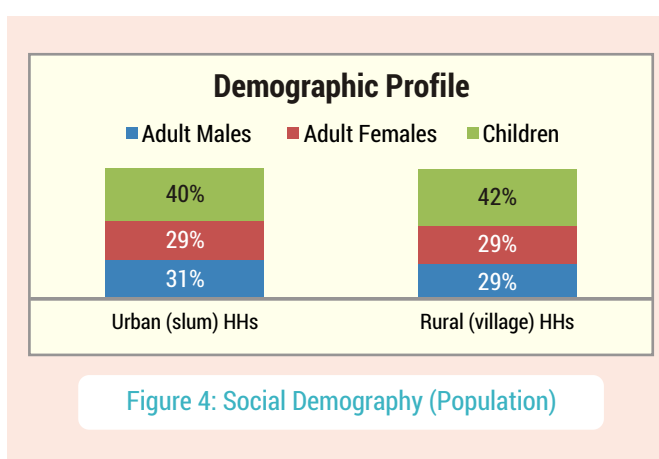


grouping of the population. It is observed that the similar needs and limitation of resources are the possible drivers for the urban constituents to mingle with one another even within a small settlement, notwithstanding diversity amongst them.



The perceived heterogeneity in the social composition of the urban settlements does not appear to cause any attrition amongst the people of different social backgrounds and that they are able to live in mutual harmony. In terms of the breakdown on socio-economic lines, the urban areas have a maximum of 42% of the households belonging to the Scheduled Caste (SC), followed by 25% and 23% to the Scheduled Tribe (ST) and Other Backward Classes (OBC) categories respectively. Households in the General category and those from religious minority account for small proportions, i.e. 7% and 3% respectively. Of the 12 communities selected in rural (village communities) research area, most of them were homogenous communities having maximum of households belonging to the ST category. In fact, of all the rural households, 71% were STs whereas 22% households belonged to OBC, and very small percentages of SC (4%), General (3%) households were also recorded.

**b. Population :** The total population covered in the study was 21,826 comprising 65% from the urban areas and the remaining 35% from the rural setting. The population enumeration was divided in to three categories namely, adult females, adult males and children below 18 years of age. In the total population, 40% were children, 30% were adult males and 29% were adult females. The rural population had an edge in terms of children's population at 42%. The

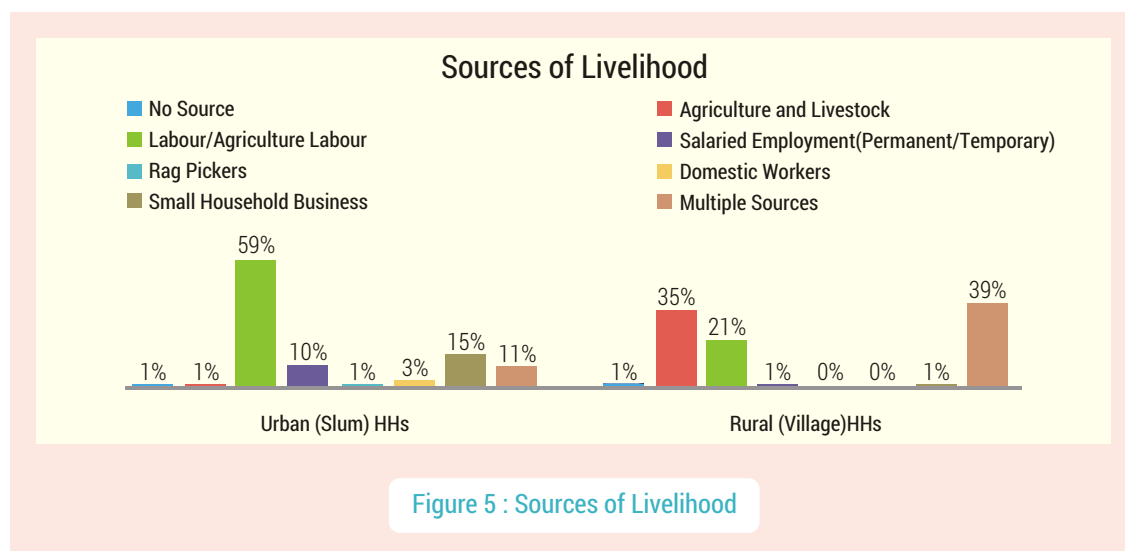


percentage of adult males and adult females was equal in rural areas whereas in urban research areas the adult male percentage population was 2% higher than adult female population.

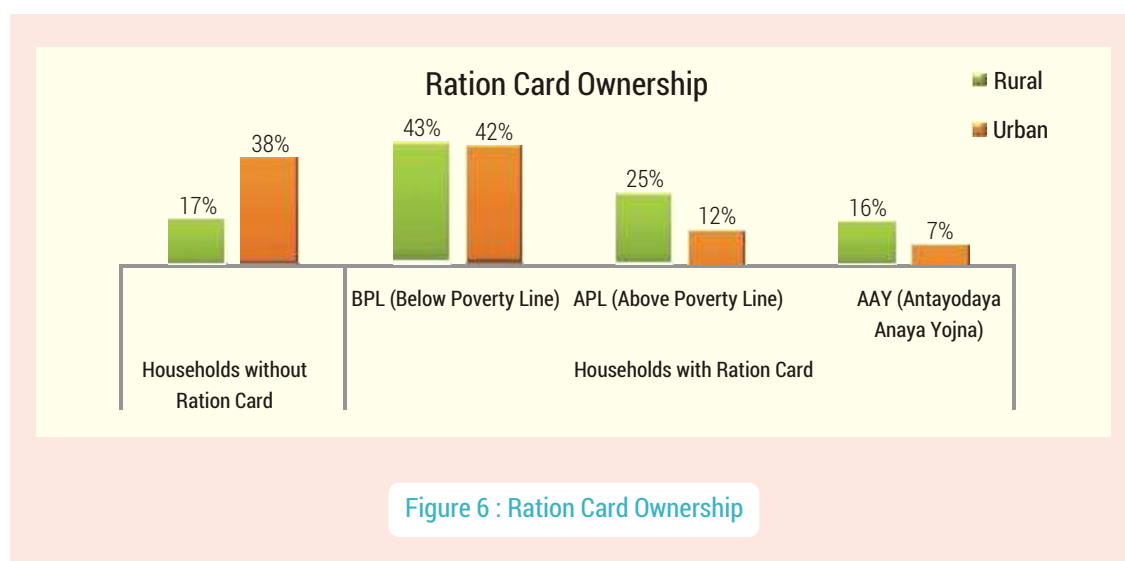
## 4.2 Economic Analysis

The economic status for all the households was appraised on the basis of source of livelihood and type of ration card each household had.

a) **Sources of Livelihood** : For majority of the households, the source of livelihood was labor work at construction sites in urban areas (59%) but in rural research sites people were dependent on more than one source of livelihood (39%). Agriculture laborers (35%), laborers at mining sites and NREGA works (21%) were three major sources of livelihood for the rural residents.



b) **Ration Card Holder** : Ration Card is issued to anyone who is a permanent resident of India. It is mandatory to have the Ration Card for the households to be eligible to avail subsidized ration.



Of the total households in the research areas, 30% households did not possess ration cards. Amongst those who had the Ration Cards, 61% had the BPL Ration Cards, 15% had Antyodaya Anna Yojana (AAY) Ration Cards and 24% had Above Poverty Line (APL) Ration Cards. It is evident that the majority of the households in the research area come from the poorer sections of the society. Also, majority of the household were either the BPL or AAY ration card holders, dependent upon subsidized ration given their weak economic status.

The percentage of households without ration cards was higher in urban areas (38%) as compared to in rural areas (17%). The AAY ration card and BPL ration card holder households were more in rural areas as compared to in urban areas, indicating comparatively poor economic status of the households in rural areas.

### 4.3 Digital Sources of Information & Communication

In present times, being informed may be rightly interpreted as being empowered. The information and knowledge have been identified and acknowledged as agents that affect the socio-economic and political activities of people at large. Digital means of information and communication as are used by households in selected urban and rural research areas has been investigated. The baseline survey points out that mobile phone, television and Internet are the three digital sources of information that people make use of.

a) **Mobile phones** : Mobile phone was found to be the most common digital source of information and communication for the households for information exchange.

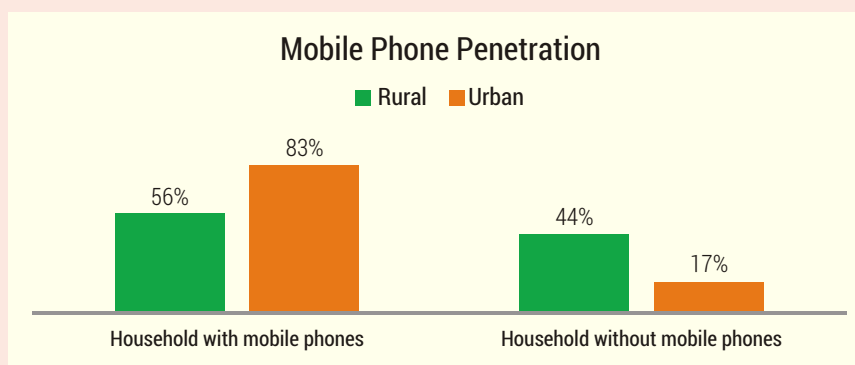


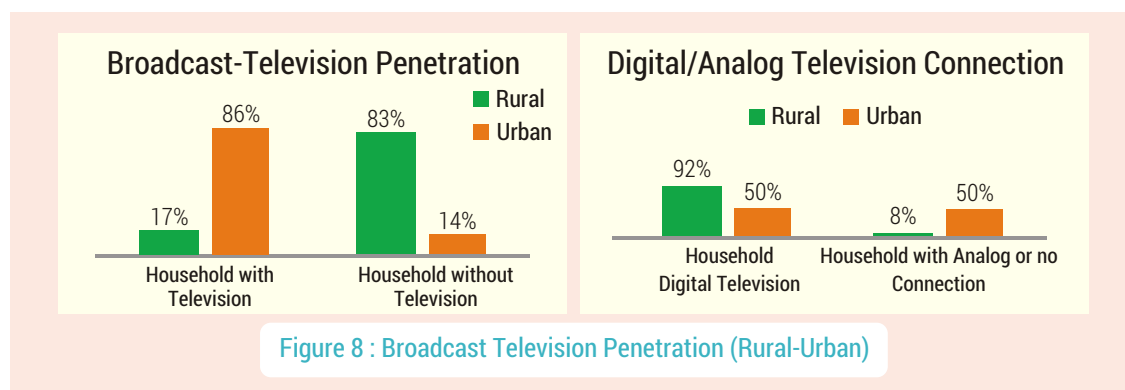
Figure 7 : Mobile Phone Penetration

72% of the total households studied in research areas had mobile phones. Further, 30% of the households with mobile phones had more than one mobile phone indicating a swift gain in its popularity amongst the households as an important means of being in communication with one another. As many as 83% of the urban households possessed at least one mobile phone. However, as the figure 7 indicates, rural households lag behind in this crucial possession at 56%. However, it is also set to trigger rise in use and demand as well, given the ease of use and higher perceived value in communication as is afforded by the mobile phone.

Internet Penetration- (Urban-Rural)				
	Type A Only mobile phone Internet	Type B Dongle/wired Internet	Type C (A+B)	Total
Rural Households (1617)	49 (3%)	0 (0%)	1 (0.1%)	50 (3.1%)
Urban Households (2653)	163 (7%)	6 (0.3%)	7 (0.3%)	176 (7.7%)
Total Households (4270)	212 (5%)	6 (0.1%)	8 (0.2%)	226 (5.3%)

**Table 1: Internet Penetration (Urban-Rural)**

b) **Broadcast-Television and Cable Services** : Television was popularly used as a source of information and entertainment in the research area. 60% of the total household had television sets. However, there is a sharp divide in penetration of television between the urban and rural areas. As compared to 86% households possessing televisions, only 17% households possess television in the rural areas, clearly indicating a long way for the rural population to access and use this modern means of information and entertainment. **Figure 8** presents further breakdown with regard to subscription to digital cable connection. The households with television had subscriptions to two types of connections namely Analog and Digital. The urban research areas had equal percentage of digital and analog television subscribers. Thus, 50% of the total urban households having television were digital cable subscribers and 50% were subscribed to analog television connections. The digital cable connections were of two types- dish antennae or digital cable connection and the analog connections were spiral antennae (DD1), wired Cable and no connection.



On the contrary of the small percentage of rural households with television 92% were digital cable subscribers and the remaining 8% had analog connections.

c) **Broadband-Internet** : Internet was the third source of information; communication and entertainment for the people in the study area. Internet was recorded to be the least commonly used digital sources of information and communication. Only 5% internet subscriber households were recorded in the research area. Two mediums of internet access were identified to be present in the households in research area. Households either had internet supporting mobile phones or had computer with a dongle or wired connection. Evidently, internet has yet to make a worthwhile inroad with the poor households, whether in urban or the rural areas.

## PHASE 2 - SAMPLE SURVEY

### 1. Aim

The aim of the sampled survey was to understand the penetration patterns and issues associated with the use of mobile phones, television and internet among the marginalized communities residing in the area selected for the purpose of study.

### 2. Sample Unit

The household constituted the sample unit.

### 3. Sample Size

A sample of 1031 households was selected for the research study. Of these 636 were urban households and 395 were rural households.

### 4. Sampling Method

20% of the households in all the 18 communities were sampled using Random Sampling Technique. Further, if the 20% sample did not cover the special or priority households, another 5% of households were included in the sample<sup>4</sup>. Consequently, the sampled 1031 households constituted around one-fourth (24%) of the total enumerated households.

### 5. Data Analysis Results

#### 5.1 Mobile Phone Communication

In a sample of 1031 households, 73% households had mobile phones. The penetration of mobile phones was higher in urban areas with 85% of urban households as opposed to 53% for the rural households.

##### 5.1.1 Social Factors and Mobile Phone Use

##### a) Mobile Phone penetration across different social sections

The mobile phone penetration was studied across different social sections living in the communities selected for the study. The results revealed comparatively low mobile phone ownership among

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<sup>4</sup> Special/Priority Households : These households belonging to minority groups, households having a disabled individual as the member of the family, women headed households and households of old and destitute.

households belonging to socially marginalized groups like Scheduled caste (SC), Scheduled Tribe (ST) and Other Backward Classes (OBC). The mobile phone ownership was recorded to be as high as 93% among privileged social group classified as general category and comparatively low among households belonging to marginalized groups (SC, ST and OBC).

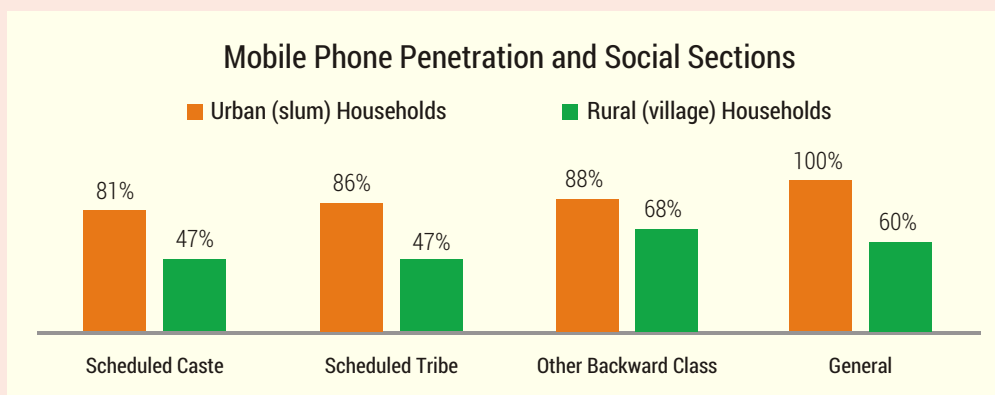


Figure 9 : Mobile Phone Penetration-social Sections

**b) Age Group and Mobile Phone Users :** The mobile phone users in 753 households having mobile phones were identified. A total of 1093 mobile phone users were recorded, 74% of which belonged to urban research areas and the rest 26% to rural research areas. The mobile phone users were classified into 4 age-groups and the number of users in each age-group was recorded. Around, two-third (maximum) of the mobile phone users (64%) was from 18-36 years of age groups.

	Under 18 years	18-36 years	36-50 years	Above 50 years	Total
<b>Total Mobile Phone Users</b>	75	702	249	67	1093
<b>Proportion</b>	7%	64%	23%	6%	100%

Table 2 : Age group and Mobile Phone Users

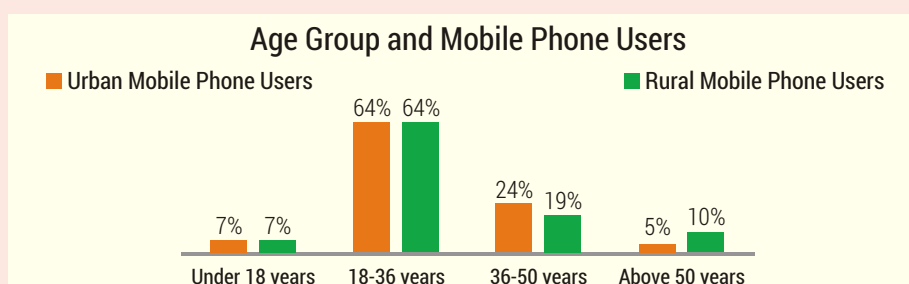


Figure 10 : Age Group and Mobile Phone users

The mobile phone use was known to be a less common phenomenon among people below 18 years and above 50 years of age. About 7% of mobile phone users were below 18 years and only 6% of the users were above 50 years. More or less similar patterns were observed for the urban and rural areas, presented above in **figure 10**.

**c) Gender and mobile phone use :** The data obtained from the qualitative research protocols revealed that mobile phones might have eased communication and information procuring process in the communities but the technology benefits have not been distributed evenly across gender. The impression of the patriarchal society was quite apparent during the conversations the field investigators had at different levels with the community. The use of mobile phone by women was not promoted and appreciated much in all the communities, both in urban as well as the rural areas. Among the total mobile phone users found in the research area only 23% were females and remaining 77% were found to be male mobile phone users. A comparatively higher percentage of 24% female users were recorded in urban areas as compared to 20% female users in rural areas.

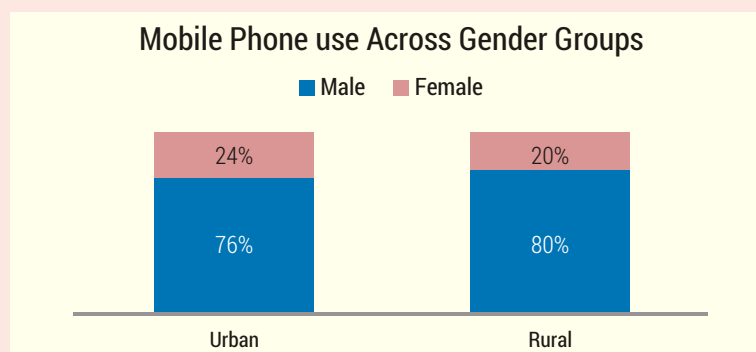


Figure 11 : Gender and Mobile phone use

### 5.1.2 Economic factors and mobile phones

**a. Income class and Mobile phones :** The households sampled were classified on the basis of the estimate of monthly income of each of them. The mobile phone ownership among households belonging to different income groups was analyzed. As per the results obtained, the mobile phone ownership was recorded to be higher among households with high income and it decreased

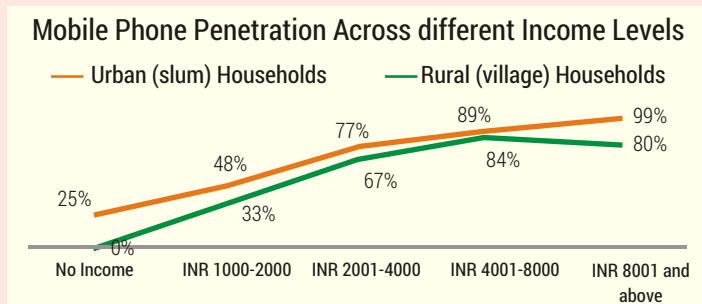


Figure 12 : Mobile Phone Penetration across different income level



with low incomes, thus indicating that mobile phone possession by a household is regulated by its economic capacity, the purchasing power.

**b. Mobile phone Expenses/User :** Monthly mobile phone expenses were recorded for 1093 mobile phone users. The respondents were unable to share the exact amount spent on mobile phones in a month's time and therefore estimate of expenses was obtained. The overall average mobile phone monthly expense/user was calculated to be INR 180. In urban research areas, the average mobile phone/month/user expense was estimated to be INR 192, comparatively higher than one for the rural research areas (INR 146). As per the June 2014 quarterly report by the Telecom Regulatory Authority of India (TRAI), the Average Revenue Per User (ARPU) was recorded to be INR 119.

Mobile Phone Communication Expenses			
	Urban	Rural	Total
Total Expenses (INR)	155272	41710	196982
Mobile phone Users	807	286	1093
Average expense (INR)	192	146	180
Table 3 : Monthly Mobile Phone Expenses			

During the baseline survey and community profiling exercise, 6 rural village communities were un-electrified. In urban areas, some households either never had electricity connections or the connections were cut due to their inability to pay electricity bills. Consequently, the battery charging expenses were borne by such households. In a sample of 1031 households, 3% of the un-electrified households had mobile phones and experienced the everyday challenge of charging their mobile phone batteries. The households possessing the mobile phones but having no electricity connection had to rely on external battery charging sources and bear expenses for the same.

The mobile phone battery charging cost was reported to be up to INR 100. Maximum of 35% of such households charged their mobile phone batteries free of cost. The households recorded in this category were the ones which had access to solar power panel. The cost of charging mobile phone batteries in urban areas was observed to be higher in comparison to that in the rural areas.

Battery Charging Expenses					
N=20*	No expenses	<= INR 50	INR51-75	INR 76-99	>=INR 100
Number of HH	7	6	4	0	3
(%)	35%	30%	20%	0%	15%
*N=20 is the total number of households that have to bear the charges for battery charging					
Table 4 : Battery Charging expenses					

### 5.1.3 Community's perception on use of Mobile phone

The beliefs and etiquette of mobile phones use were observed and recorded using both qualitative and quantitative research tools. The qualitative data revealed mixed perceptions within the community with respect to the need and ownership of mobile phones. People held three types of views related to mobile phones as (a) Useful, (b) Not Useful; and (c) Sometimes Useful. Majority of the urban and rural households in the research area considered mobile phones useful.

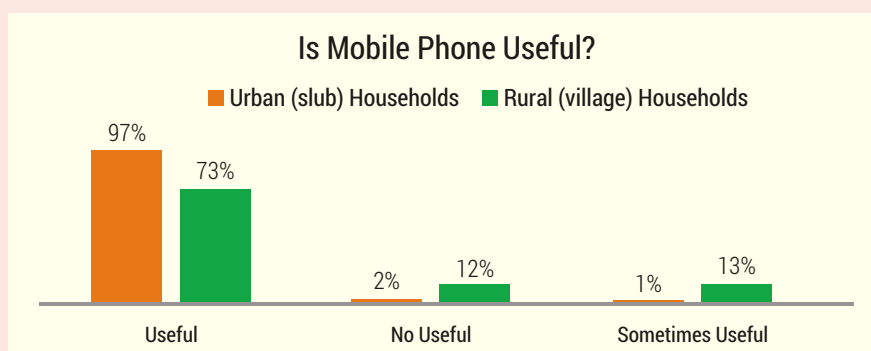


Figure 13 : Value of Mobile Phone (community's perception)

### 5.1.4 Purpose of mobile phone use and the associated problems

The results showed that the mobile phone was primarily used for maintaining social relationships. The data revealed that 97% and 81% of the total households having mobile phones used the technology for

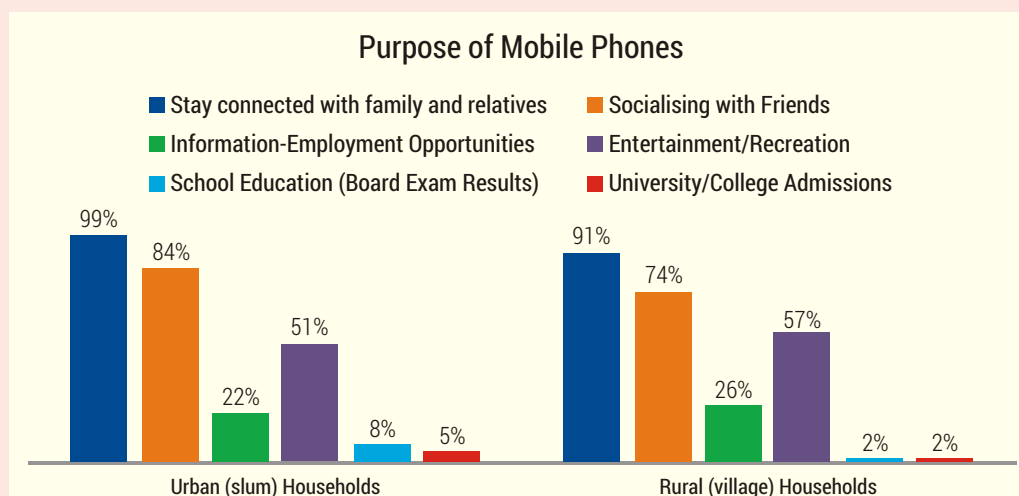


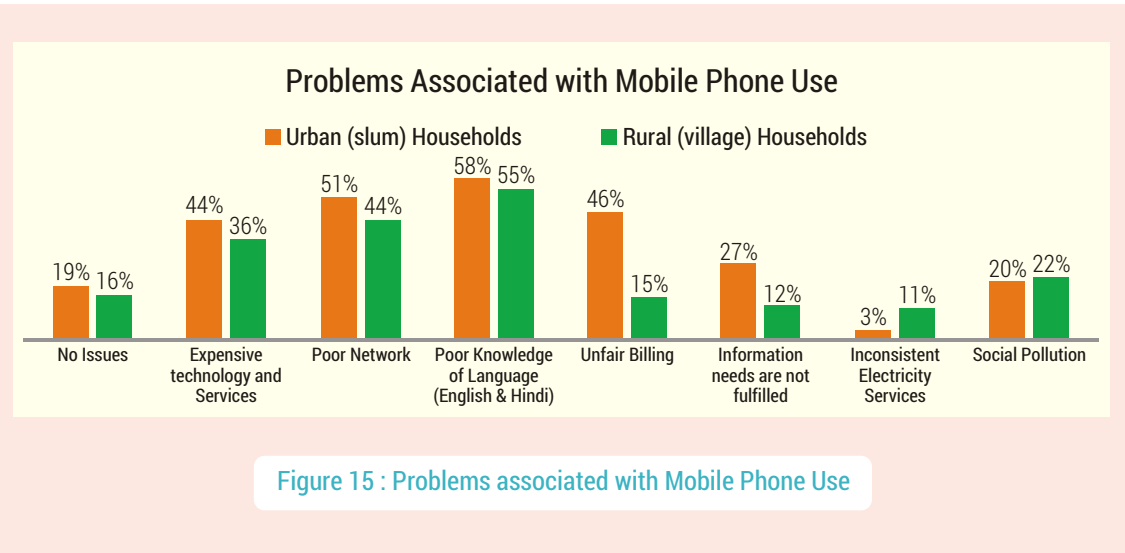
Figure 14 : Purpose of mobile Phone Use

connecting with family and relatives and socializing with friends' over mobile phones. Second most common use was entertainment and recreational activities like listening music and watching videos.

A comparatively small percentage of 23% households used mobile phones for accessing information related to agriculture, MNREGA works (rural areas) and labor work at construction sites in urban areas etc., market price of agriculture and livestock produce. Very few households with mobile phones used it for accessing information related to school and higher education. The use patterns were similar in urban and rural areas and the split of the same is presented in **Figure 14**.

**5.1.5 Problems associated with use of mobile phones :**

Nearly 18% of the total mobile phone users were satisfied with the technology and the services and had no issues. The remaining 82% of the mobile phone users reported multiple problems with the use of mobile phone they had to face.



High cost of the technology, poor network, and poor knowledge of English language, unfair billing, and inconsistent electricity were some of the problems associated with mobile phone claimed by people. Of all the types of problems stated by the users, the most common problem was the poor understanding of the language (English or Hindi). This may be because of the poor education status among the people residing in the research areas. The rural-urban split of the problems is presented in **Figure 15**.

**5.2 Broadcast-television and cable Services**

The results revealed that 56% of the households had television sets. The use of television was higher in the urban research areas with 79% of the urban households having television sets as compared to only 19% in the rural households.

The primary reason for the poor penetration in rural areas was unavailability of electricity in 6 of the 12

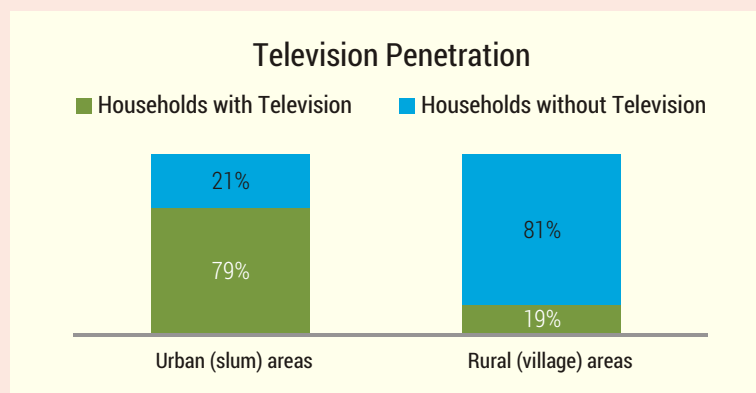


Figure 16 : Television Ownership

rural communities selected in the study. The reasons for not having television sets were explored among 44% of the total households that did not own television set. The high cost remained the most common reason for not possessing television sets for both rural and urban areas. While high price of DTH and digital cable services was the second most common reason for the inability to have television set in urban areas, linguistic issues and irregular electricity availability were the two second most common reasons in rural areas. The rural households also reported discomfort in understanding the content displayed on television as most of it was either in English or in Hindi. The people in many rural communities communicate in local dialects and hardly had much understanding of even Hindi language.

### Types of television connection (Analog/Digital)

The television connection the households had subscription to classify into analog and digital connection. The analog connections included those with analog antenna (DD1) and analog wired cable whereas the digital connections comprised the digital cable (Set Top Box) and DTH (Direct to Home).

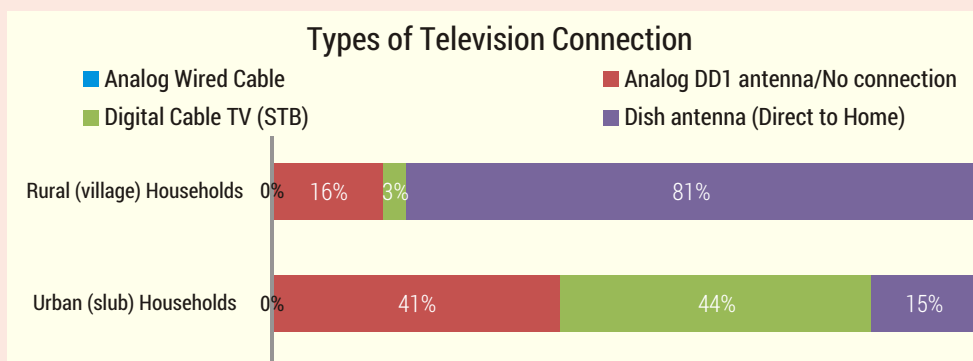


Figure 17 : Types of television connection

The data reflects differences in the preference of type of television connection in urban and rural communities. The most popular television connection in urban areas was digital cable (STB) and Direct to Home (DTH) connection in rural areas. In the urban research areas, 41% of the households were known to have DD1 connections. From the discussions with these households, it was known that earlier they had wired cable connections. Recently the analog wired cable connections were replaced with the digital cable (STB) connections. Comparatively high cost of the new digital cable (STB) connections made it difficult for most of these households to switch to new digital connections. Therefore many chose to do away with the digital cable (STB) connections and now are not having much choice to satisfy their infotainment needs with the limited DD1 connection. In rural areas television seemed to be a recent phenomenon and thus the potential of these areas remains untapped by the cable operators. 81% of the rural households with television had subscription to Dish antenna. About 16% of the rural households had a television with just DD1 connection and used for watching movies by renting DVD player from the nearest market.

## 5.2.1 Social factors and television penetration

a) **Television penetration across different social sections of society :** The television ownership in urban areas did not vary much across different classes. The data analysis shows that television use was maximum among households of general category (86%), followed by STs (81%), SCs (71%) whilst being the lowest amongst the OBCs (75%). The television penetration for any social section was recorded to be higher in urban areas as compared to in rural areas. The percentage penetration of television is shown in figure 18. No peculiar television ownership pattern was observed across the households of different social classes. Rather, purchasing power played an important role in deciding individual household's capacity to afford a television set.

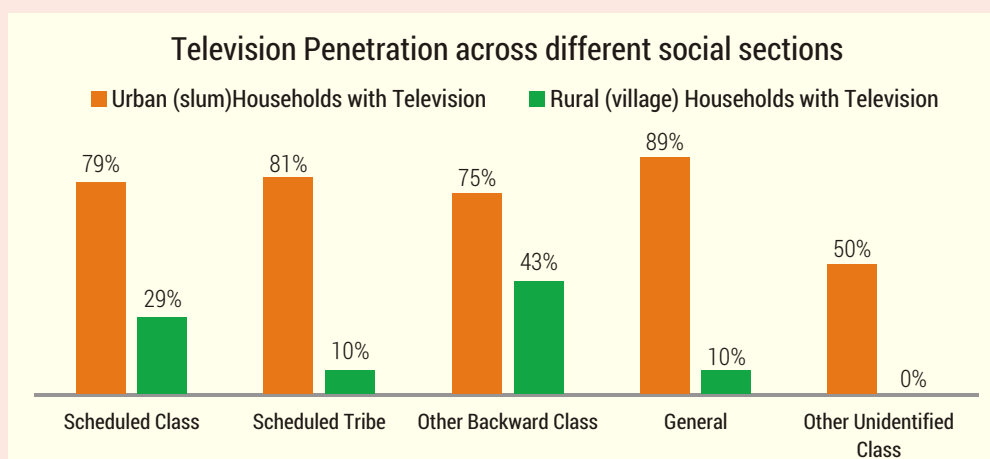


Figure 18 : Social Sections and Television Penetration

b) **Gender and television viewership :** The results show the male members in the households

dominate the choice of content to be watched on the television with control of remote being in their hands, both in the urban and rural areas. Rest of the family members would thus either take it or leave it. The dominance by men was more profound in rural areas as compared to in urban areas. In rural areas, 52% households, and 44% households in the urban areas were recorded to have dominance of a male on the television sets.

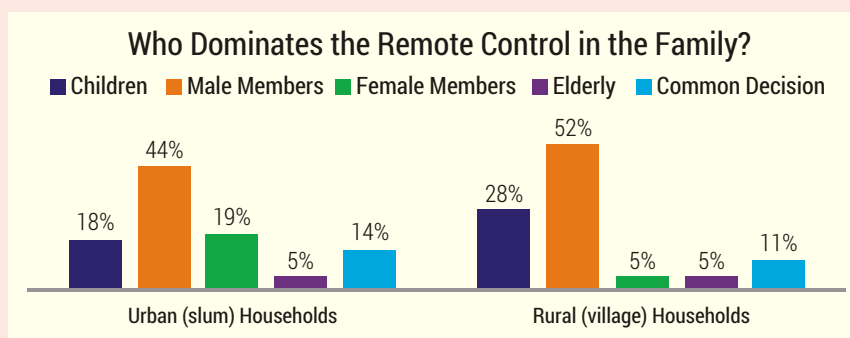


Figure 19 : Television and gender penetration

Second to male members it was the children who used remote control device more regularly followed by the female members in a household. In very few households, the remote control was equally shared by all the members of a family.

## 5.2.2 Economic factors and Television Use

a) **Households Income and Television Penetration** : The data results reflect higher television penetration amongst the better-off households. The percentage of households with television increased as the income levels increased. In urban areas, no households with zero-income having a television set

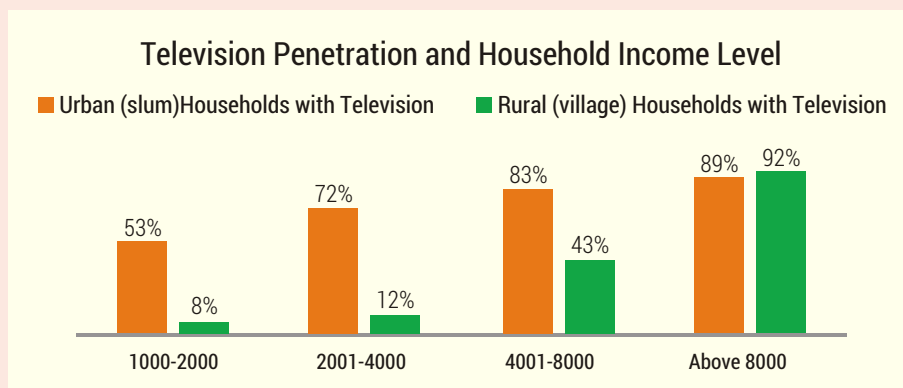
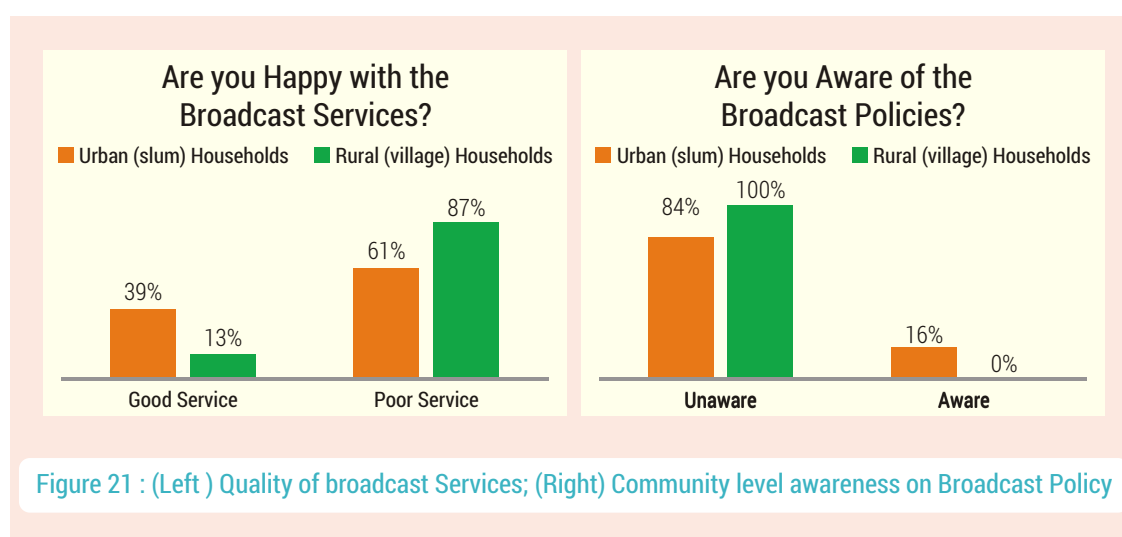


Figure 20 : Income Level and television penetration

were recorded. The maximum households with television were recorded in the highest income level of >INR 8000 (89%). Similarly in rural areas, only 8% of the households from lowest income level of INR 1000-2000 were recorded to have owned a television set and gradually the television ownership increased with the increase in their income level. The possession of television sets was recorded to be maximum of 92% among the households belonging to highest income level of >INR 8000.

### 5.2.3 Community's perception on use of television

a. **Quality of broadcast-cable services** : 64% of the television user households considered the present quality of the broadcasting services to be good whilst the remaining 36% found it to be poor. In urban areas, 61% households reported to be satisfied with the services whilst the remaining was not. In rural areas, majority of 87% of television user households were satisfied with the services and only 13% complained about the services.



b. **Policy (broadcast policies) awareness** : As per the interviews and FGDs, the communities seemed to be unaware about the policies related to broadcast. This reflected from the results of the data collected using quantitative protocol. In rural areas, the status was even worse as compared to that in the urban areas. The results show that 100% of the total rural households and 84% of urban households were unaware of broadcast policy. The poor education and low literacy level of the marginalized communities appears to be the factor responsible for the lack of awareness on broadcast policies.

### 5.2.4. Impact of digitization

Recently the government of India made it mandatory for all the television viewers to switch to digital connections either through STB (set top box) or DTH (Direct to Home) from analog connections (Wired cable TV connection and DD1). The process has begun in phases and many big cities have been covered in the process. Similarly, in the urban communities selected for the research are also going through the process of transformation from analog to digital connections.



The data analysis from the sampled study shows that the wired cable connections were charged between INR 100-200/connection/month and the new digital cable (STB) connections are costlier. Therefore, it was not possible for many households to get digital television subscriptions. Thus, those who could not subscribe to digital cable connections today have no television connections.

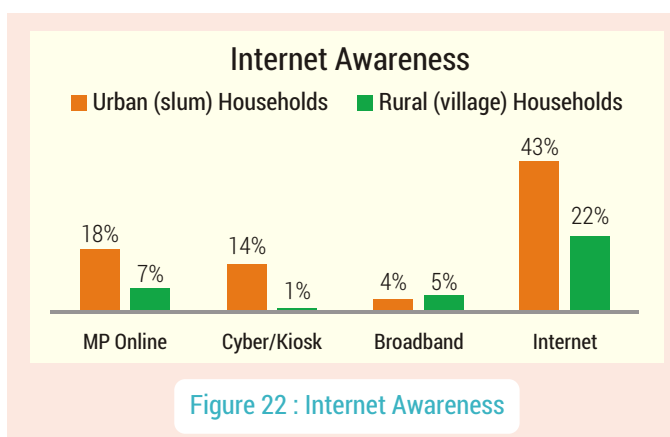
	Urban Households (%)	Rural Households (%)	Total Households (%)
Analog → Digital	292 (58%)	63 (84%)	355 (61%)
Analog/Wired Cable → No connection	177 (35%)	3 (4%)	180 (31%)
No TV → TV with No connection	36 (7%)	9 (12%)	45 (8%)
Total	505	75	580
Table 5 : Shift from Analog to Digital cable services			

**The digitization of cable TV system :** In urban areas, the wired cable connections are being replaced with the set top box connections. The process of replacement of cable connections with set top box connections was reported to have begun. Of the total 505 households with television sets, 58% have switched from analog to digital connections (either set top box or DTH), 35% of the households who could not afford to switch from analog to a digital connection, do have a television set but with no connections. Among the rural village communities studied, very few households with television sets were recorded. The analog or wired cable TV connections never reached these communities. People either had access to DD1 or DTH services. In rural areas, many households have television but no connections and have bought their TV sets only for watching movies. Movies are watched on television sets by connecting the DVD rented players.

### 5.3 Broadband-Internet Penetrations

#### 5.3.1 Community Awareness

**about Internet :** In order to understand the awareness of community about internet, a questionnaire was designed. From the informal participative conversations and discussions with the community, four terms related to the internet technology being used within the community were identified.



These are, MP Online Centre, Cyber Café/Kiosk, Broadband and Internet. Each household's level of acquaintance with all these four terms was observed and evaluated. The results revealed that 35% of the people identified the term Internet, 14% knew about MP Online Centers, 9% knew about Cyber Cafés/Kiosks and very few (4%) could understand the term Broadband.

### 5.3.2 Internet Penetration

➤ **Computer aided internet connection** : In a sample set of 1031 households, only 14 households possessed computer and 13 (1% of 1031 households) had internet connections. Only 2% of the households in urban areas, and even lesser, that is, 1% of rural households had computers with internet connections.

➤ **Mobile aided internet connections** : The results revealed that a total of 9% of the households accessed internet via mobile phones. 13% of urban households and 3% of rural households accessed internet via their mobile phones.

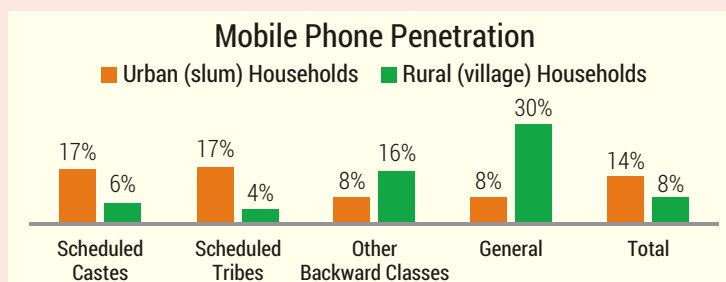
➤ **Internet user base** : Only about 12% (122) of the total households were the internet users. 14% urban households and 8% rural households were recorded to be the internet users.

	Households			
	Total	Computer	Computer + Internet Connection	Mobile Phones + Internet
Urban (Number)	636	12	12	83
(%)		2%	2%	13%
Rural (Number)	395	2	1	13
(%)		1%	0%	3%
Total (Number)	1031	14	13	96
(%)		1%	1%	9%

**Table 6 : Internet Penetration**

### 5.3.3 Social factors and internet use

a) **Social Classes** : In urban areas the internet use was more common among members of households belonging to general class while in rural areas it was more common among the individuals of scheduled castes and scheduled tribes



**Figure 23 : Social Sections and Internet Use**

households as compared to individuals belonging to the other social class categories identified in urban and rural area.

**b) Gender and internet use :** The internet use was studied across gender as well. Of the total internet users, 87% were males and remaining 13% were females. The gender divide was equal in urban and rural areas. The informal and formal discussions revealed that the community apprehended internet to be inappropriate and unsafe for females. Further, the focused group discussions with the males and females of the community revealed, comparatively poor education status among females accounted for lack of awareness, poor understanding and ability to make use of internet.

Internet Users			
Gender	Male	Female	Total
Urban	86 (87%)	13 (13%)	99 (75%)
Rural	29 (88%)	4 (12%)	33 (25%)
Total	115 (87%)	17 (13%)	132 (100%)
Table 7 : Internet Use across Gender			

**c) Age group and internet use :** The internet users were sorted by age. The users were classified into 4 age groups. Maximum internet users were recorded in the age group of 15-30 years, 90% in urban and 70% in rural.

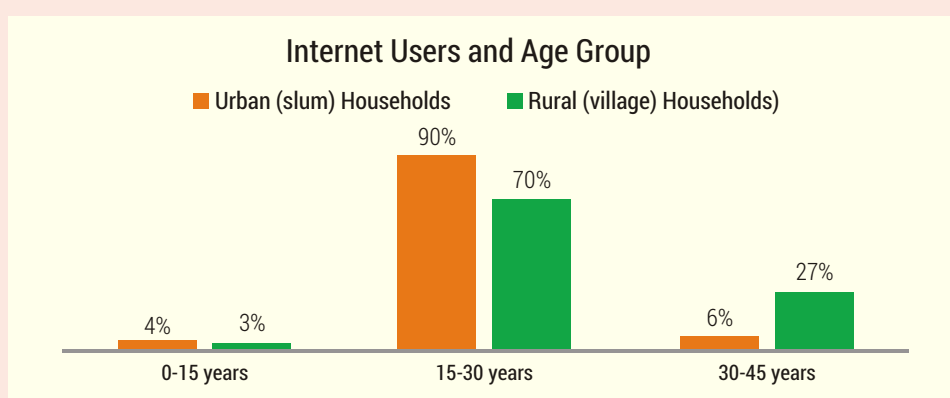


Figure 24 : Internet use across different age group

### 5.3.4 Economic factors and internet use

a) **Income level and internet user households** : The percentage of households with internet users was recorded to be higher among the high household income groups and vice versa. The results of urban and rural research sites were analyzed. Across all the income groups the percentage of households with internet users was more in urban areas as compared to in rural areas apart from the highest income group of "Above INR 8000". The percentage of households with internet users was 40% in rural areas as compared to 16% in urban areas.

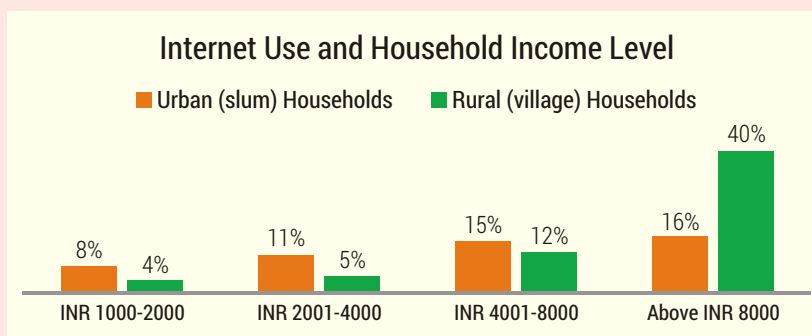


Figure 25 : Internet use and Income level of a household

b) **Expenditure on internet** : An estimate of money spent on internet services was recorded. 3% of the internet user households did not spend any money on internet and accessed it for free of cost either from school's computer lab, office, computer learning institute or friends'/relatives' house. Of all the households, one household reportedly spent more than INR 1000. It was the highest amount recorded to be spent on the use of internet by any household. The households with internet users in urban areas were found to spend as high as INR 1000 on internet whereas in rural households spent maximum of INR 150. The poor economic situation of the rural households in addition to a poor understanding of use of the internet due to the little exposure, limits their use of internet and confidence to fiddle with the technology.

### 5.3.5 Internet access points and purpose of use :

The places/points of internet access, internet users visited were identified. Seven internet access points were recorded in the data. 32% of the total internet user households (119) accessed the internet from multiple points.

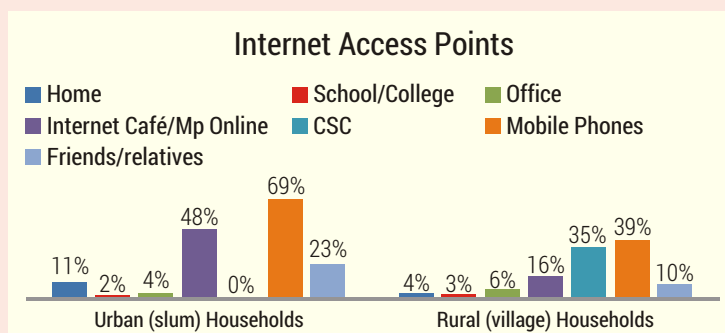
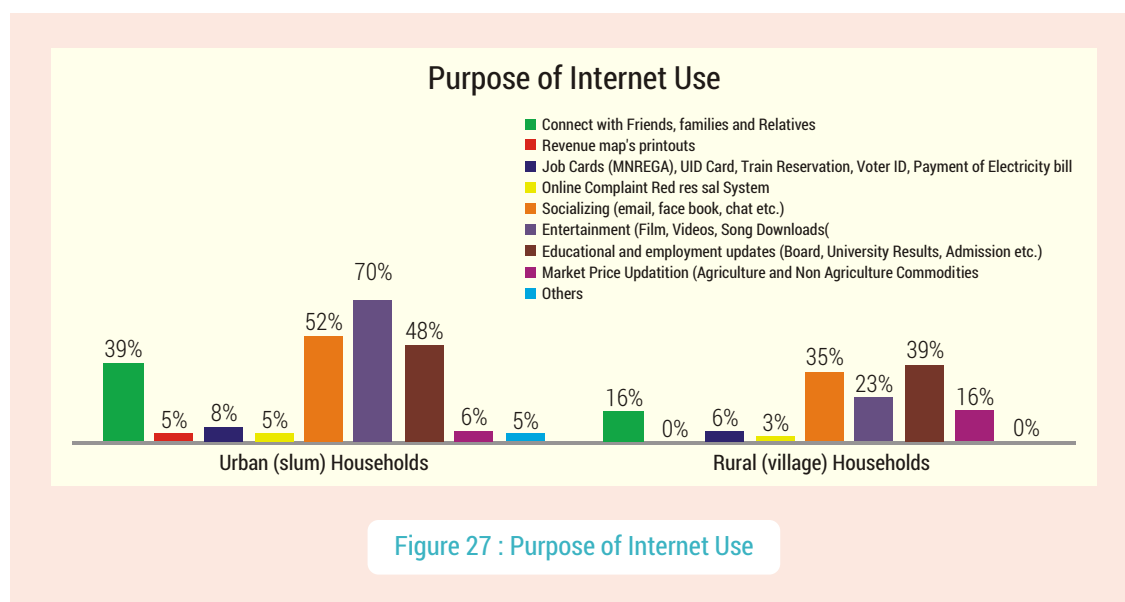


Figure 26 : Internet Access Points

### 5.3.6 Purpose of Internet use

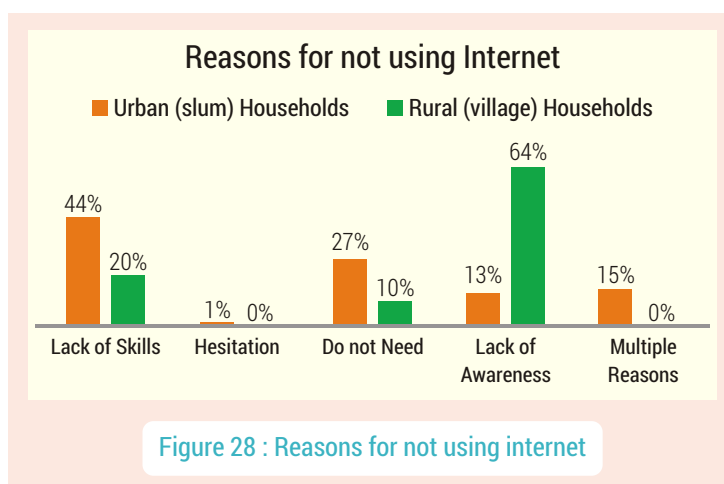
The internet use pattern varied for urban and rural households due to the diversity in social structure, literacy levels, economics, and means of livelihood and understanding of the internet technology.



From the results obtained, majority of households opened internet as a source of entertainment from where songs and videos could be downloaded, films can be seen and games can be played etc. The data results show that 4% of people accessed internet to register complaints through online complaint redressal system. Among the rural households, the internet was used most commonly for three purposes: socializing, educational and employment, and entertainment. In the rural communities, the households with internet users accessed internet for retrieving information related to agriculture and MNREGA job cards.

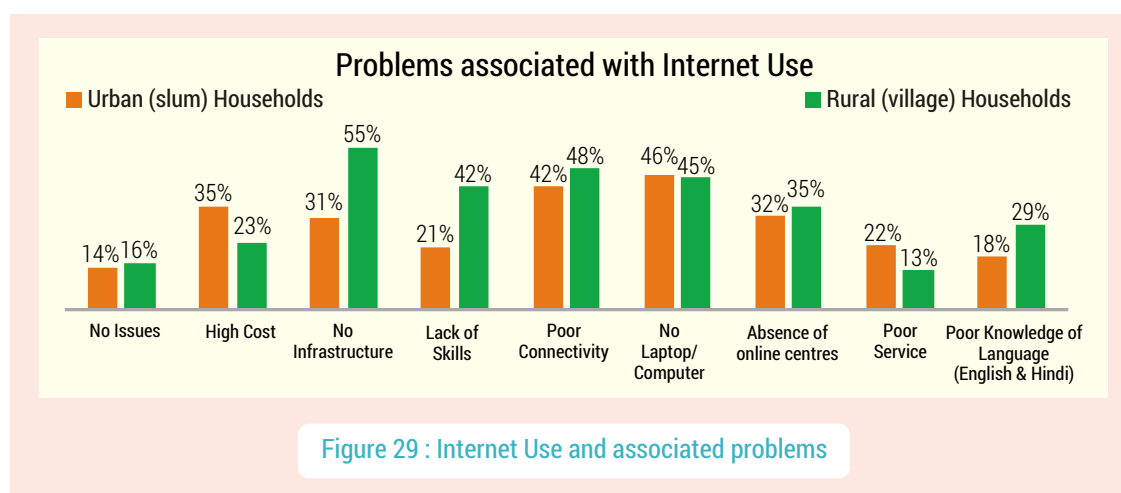
### 5.3.7 Non-internet user households

Of the 1031 households studied, 88% did not use internet. The reasons for not using internet were explored. Whilst lack of awareness was cited as a major factor in rural areas (64%), for 44% households lack of skills was the factor for non-use of internet. The reasons for not using internet in urban and rural areas are presented in the following figure 28.



### 5.3.8 Internet use and associated issues

Internet access was not a very smooth process for the households surveyed in the research areas. Majority of the internet users shared the problems they had faced while accessing internet.



The poor economic status that barred their access to computer/laptop was the highest rated barrier in use of internet in urban areas. This economical barrier was followed by poor connectivity and high internet access cost. In rural areas the scenario differed with 55% of the internet user reported absence of infrastructure to support internet services as the most common barrier to internet access followed by poor connectivity, poor economics and lack of skills to access internet.

### 5.3.9 Conclusion

Three types of digital sources of information and communication were found to be used in the urban slum and rural communities studied for this research work. Of all the three, mobile phone was the most commonly used followed by television and internet. Internet was recorded as the least popular or least commonly used source of information and communication. Economics of a household and an individual were apprehended to be the plausible barriers in accessing any of the three digital sources identified in the research areas. Next to economics was the social dynamics at community and household level that impacted the use of the digital technology. The use of the digital sources of information and communication was recorded to be low among females as compared to men. Similarly, age of the user also impacted the technology use. All the digital sources were more popular among the people belonging to age group of 15-36 years of age.

In addition to the socio-economic barriers, poor investments in setting up the digital infrastructure across the habitations of the communities, particularly the marginalized ones is cited as a critical factor in securing a digitally informed and knowledgeable society. Among the 18 communities of marginalized sections of society studied, 5 communities still wait to be connected to the power grid. Accordingly, it is crucial that alongside the bridging of economic and social gaps and barriers in access to and use of digital technology, the government needs to ensure that the requisite and functional infrastructure is created.

## PHASE 3 - WOMEN SURVEY

### 1. Aim

The aim of the gender survey is to understand the socio-economic-cultural barriers for women in accessing ICT and digital tools and to identify the causes and implications of the same.

### 2. Sample Unit

Individual women respondents

### 3. Sample Size

540 women respondents were interviewed; exclusively with reference to a gender-focused questionnaire.

### 4. Research Findings

#### 4.1 Digital Communication : What does it mean for marginalized women?

Technology itself never differentiates in terms of gender. However, according to an Inter Media Tracker Survey<sup>5</sup> done by Financial Inclusion Insights, out of the 94 million mobile subscribers, women are less than half as likely as men to own a phone. Across the nation, beyond access, personal mobile phone ownership is gendered, with 68% of men and 31% of women owning a phone, individually. Within the northern states in particular, there are significant differences in mobile phone ownership between men and women. In the working paper on “Mobile Phones : A Tool for Social & Behavioral Change”<sup>6</sup>, MSBC India says that mobile phone has moved beyond being a mere technical device to becoming a key “social object” in every aspect of daily life in India. With the spread of “anywhere, anytime” communication infrastructures, the mobile device has increased convenience, better access to information and streamlined access to social and economic entitlements.

Census 2011 figures show that more than 65 percent of women in India are literate. Madhya Pradesh scores below the national average by having 60 percent female literacy. The gap further widens if we look in to urban-rural divide, with only 52.43 percent<sup>7</sup> female being literate in rural Madhya Pradesh. Therefore in a state where almost half the women are illiterate, technological empowerment with ensuring access, not only in villages, but also in urban slums is major thrust to build capacity which will certainly generate demand for better connectivity and quality of services. Among 205 million internet users in India (wireless and wire line), female representation is only 39 percent. According to IMRB, state like Madhya Pradesh

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<sup>[5]</sup> India : Financial services use and emerging digital pathways FII tracker survey

<sup>[6]</sup> <http://msbcindia.org/wp-content/uploads/2014/02/A-Working-paper-book.pdf>

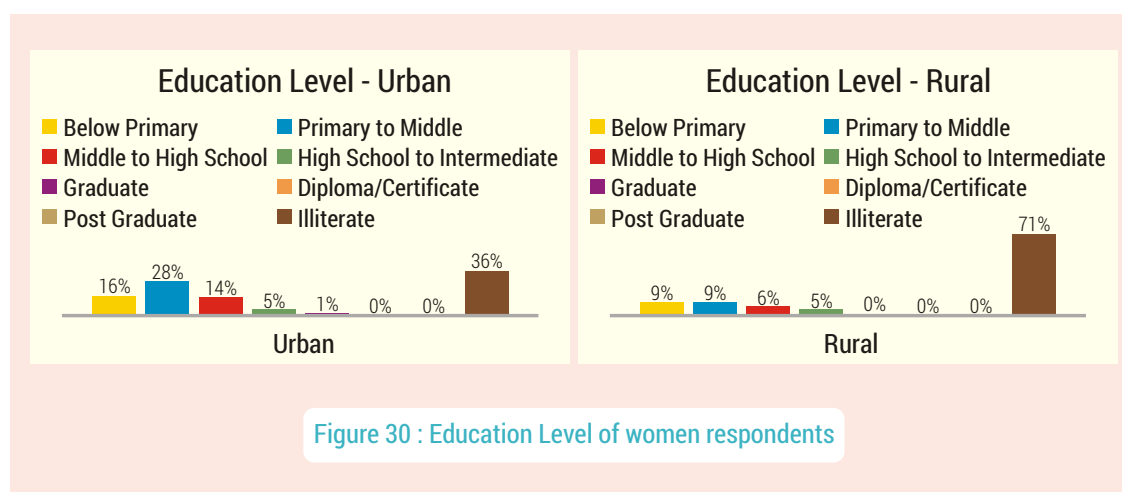
<sup>[7]</sup> [http://censusindia.gov.in/2011census/censusinfodashboard/stock/profiles/en/IND023\\_Madhy%20Pradesh.pdf](http://censusindia.gov.in/2011census/censusinfodashboard/stock/profiles/en/IND023_Madhy%20Pradesh.pdf)



having 55.4 million wireless subscribers, mobile internet users comprise only 1.7 million and a majority of them belong to the urban areas.

## 4.2 Demographic details of the study area

Apart from the baseline and family surveys, 30 women respondents were selected in each of the 18 slum or village areas with specific questions related to their information needs and fulfillment, sources to get information, use of digital media, like mobile phone and internet and digital broadcast system. A total of 180 women respondents from 6 slum areas belong to urban districts of Bhopal and Indore; while 360 respondents were from 12 villages from the three rural districts of Madhya Pradesh, namely Panna, Jhabua and Dindori.

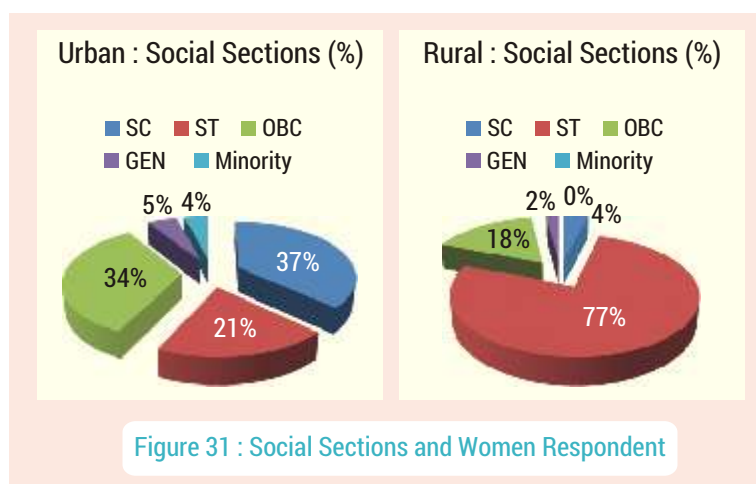


## 4.3 Literacy Status

Female literacy rate in Madhya Pradesh is 60 percent (Census 2011). In Indore and Bhopal, 36 percent urban slum dwelling women were found to be illiterate. However, representation of the women respondents, who were educated to the middle school level, was 28 percent. On the other side in rural areas, 70 percent women respondents were found illiterate, while 23 percent women are educated to the high school level.

## 4.4 Social Class

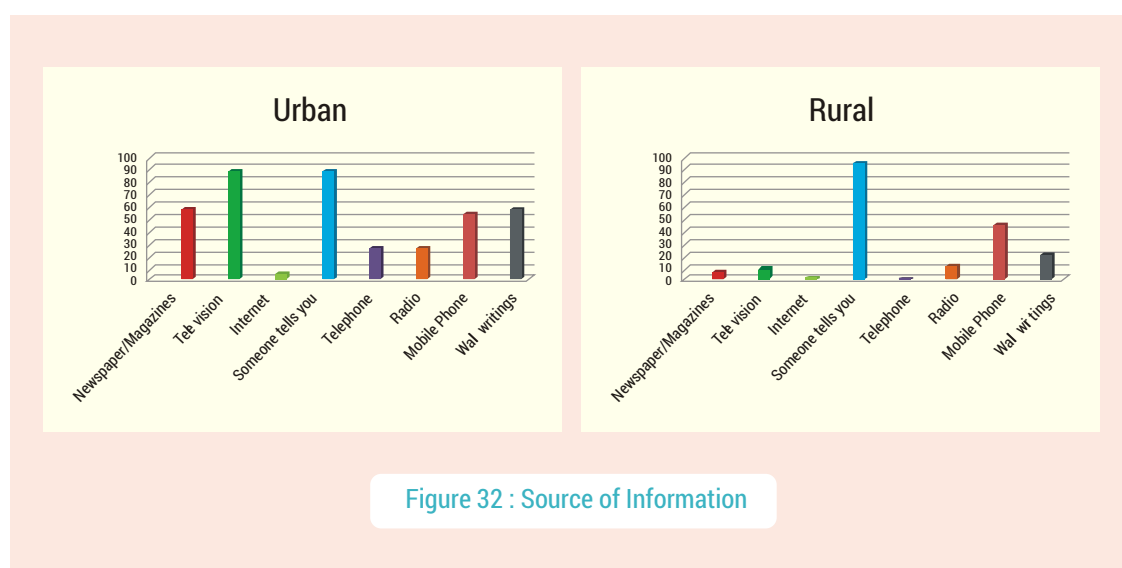
In six urban slums, Scheduled Caste women respondents dominate half of them. Bheel-paltan is the only slum of Indore, where Scheduled Tribes score over 90 percent. In all, 66 percent slum dwelling women belong to the Scheduled Tribes.



OBC is the second major caste group comprising 61 percent thereof. In rural area, 76 percent of the women respondents belong to the Scheduled Tribe, whilst OBC is again the next major caste group representing 17.5 percent of women respondents.

#### 4.5 Source of Information

The digital divide has to two gap-elements to deal with; skill gap and access gap. Without access to technology, it is difficult to develop technical skill and it is needless to have access to technology without having the skill, in the first place, to utilize it. For women, this is the first and foremost challenge to come out of this gap to build confidence amongst the family and society, in order to participate with a complete sense of equality.



Education makes one far more aware about this changing world. It empowers us to avail of our rights, just as, right to information, right to express, right to know etc. But this depends upon certain factors, like the sources of information in the community, mode of communication and the easiest way to acquire information. In Bhopal and Indore, one each of the two slums is situated in the heart of the city. Only Jaatkheti in Bhopal and Rahul Gandhi Nagar in Indore are resettled outside the core city area. However, television and mobile phone is the easiest mode of information for the women of both Jaatkheti and Rahul Gandhi Nagar.

Almost 89 percent women say that television is the strongest medium of information, while mobile is placed onto the second spot in this regard with 53 percent. Almost 57 percent women get information of their choice from newspapers. 88 percent of women respondents cited acquiring information through someone in person.

## 4.6 Digital ambition

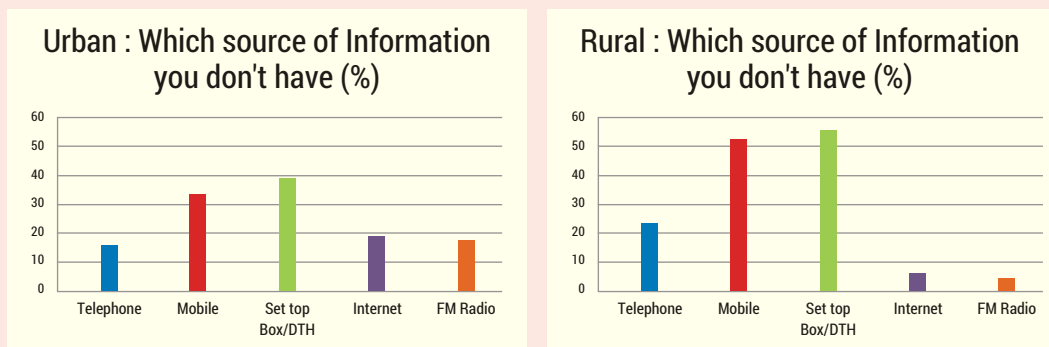


Figure 33 : Digital Ambition: Which source of information you don't have? (Urban-Rural)

Digital world is leapfrogging today. At the same time, the burden of expertise in handling digital devices and economic burden of adopting the latest technology also creates a social divide in the terms of deprivation, exclusion and affordability.

In cities like Indore and Bhopal, digitization process of TV channels is over and will be completed in the rest of the country by the end of this year. New technology of digital TV transmission consists of a set top box connected, with either cable connection or a dish antenna over the rooftop called Direct to Home (DTH). This new initiative has deprived many urban slum families, which were earlier dependent on analogue cable connection. Now they have to pay the cost to avail digitized TV transmission on much higher rates. Digital set-top box is at the top of the shopping list of almost 40 percent of urban women respondents; whereas mobile phone occupies the coveted 2<sup>nd</sup> spot for 34 percent female respondents. The demand for internet as a source of information was made by 19 percent women.

In rural areas also, the demand for set top box and mobile phone is quite high. About 55 percent women said they do need a set top box to watch digital TV channels, while 52 percent respondents have a felt need for a mobile phone. In urban areas, 29 percent women respondents said that they do not have any digitized connection for watching TV at home. It means that they can avail only Doordarshan national network.

## 4.7 Occupation and livelihood

In most of rural India, especially in tribal districts, women enjoy full freedom to work outside home. They go for labor work to help their families financially. In a small village, comprising 150 odd homes, safety and security of the kids is not a major issue. Hence, we got 93 percent of women respondents as working in

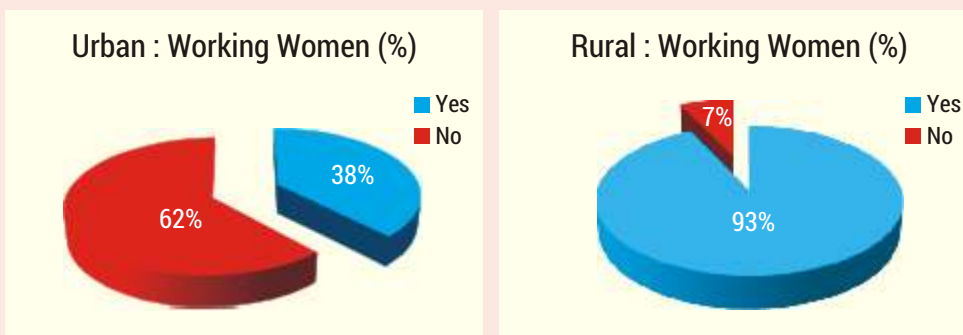


Figure 34 : Working and Non working women respondents (Urban-rural)

rural area. They participate in developmental works under NREGA, take courage to go to nearby jungle to collect tendu leaves, a minor forest produce, and also for vegetable shopping at nearby weekly haat.

## 5. Communication status

### 5.1 Using mobile to get connected

Living in an unsecured urban environment, staying connected with the family becomes the prime necessity for poor slum dwellers; whether working or not working. Mobile phone is the most easily available medium of connectivity. Of the 6 slums in Bhopal and Indore, over 85 percent female respondents use mobile phone. In slums like Jaatkhedi of Bhopal and Rahul Gandhi Nagar in Indore, percentage of women mobile users even crossed 90. Mobile has become necessary for a woman to get help from her close ones in case of any emergency. It also provides new opportunities to earn, to get informed, to know, to decide about betterment.

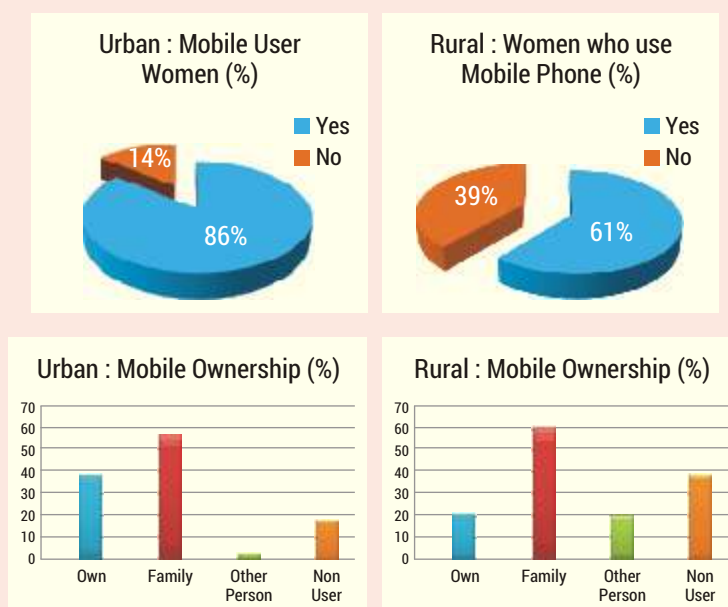
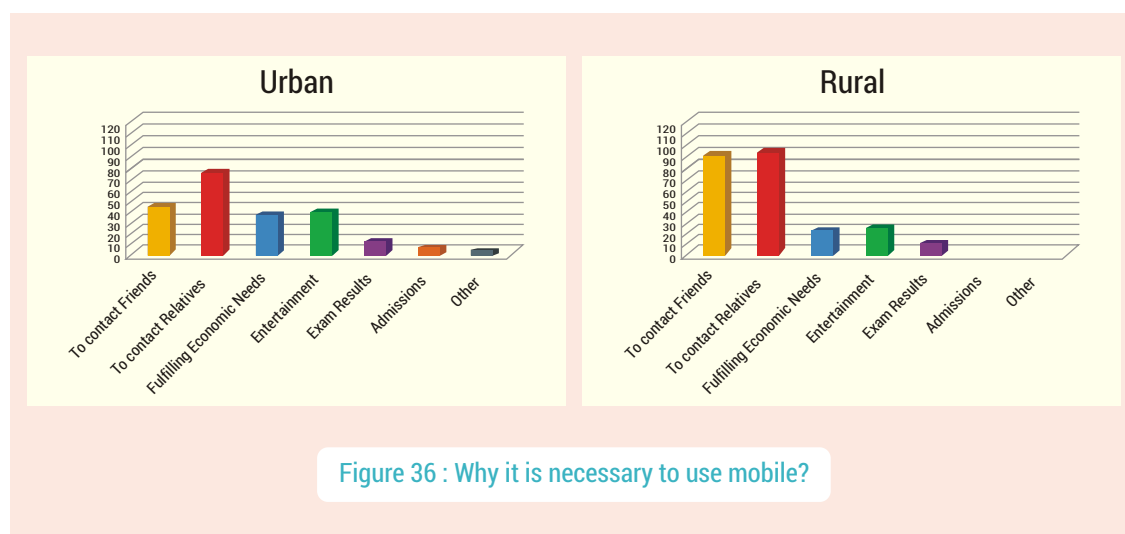


Figure 35 : Mobile phone women users (Urban-Rural)

About 39 percent women in urban slums have their own mobile phone, while 57 percent share a mobile phone with their family. Only 4 percent women look for someone having a cell phone for getting connected. In the slums like Krishna Nagar, where 46 percent women go to work out of home, owning a mobile is a bare necessity, not only to remain connected with the family but also with their employer. Krishna Nagar has the highest number of women mobile owners.

In rural areas, 61 percent women use mobile phone. Amongst them, 60 percent women share the mobile phone with the family. Only 20 percent use their own mobile phone, while over 19 percent borrow mobile phone from others, in case of some emergency.

## 5.2 Why it is necessary to use mobile?



Mobile is not just a communication device for an educated, empowered urban woman. She first learns to use her device and then shares her emotions freely whenever she wants, even through videos, photos. It reflects her freedom, her identity and her perception on different issues. Mobile is also a good instrument for entertainment. Over 75 percent women like to use the cell phone in similar way, contacting relatives and friends. During the survey, 44 percent women said that they use it for contacting friends, whereas 37 percent also use it for a source of entertainment. Fulfilling economic needs through mobile phone is largely dependent on data use. But there are some hidden barriers also, like its cost, individual capacity to use internet optimally, convenience etc. Hence, the better option is to get mobile value added services (VAS); which also works as a source of getting information about jobs, news updates and finances. So, 35 percent women respondents in urban areas use their mobile phone for fulfilling their economic needs, while 37 percent use it for entertainment purpose.

## 5.3 Usage pattern of mobile

How many times you used your mobile phone in the last week? Exact answer of this question is never easy for a frequent cell phone user resorting to calling, texting, listening to music, receiving/sharing videos, web

surfing, using apps etc. In urban slums of Bhopal and Indore, ownership of cell phone is limited to only 38 percent of women. On the other hand, 57 percent of women respondents share a mobile phone with their families.

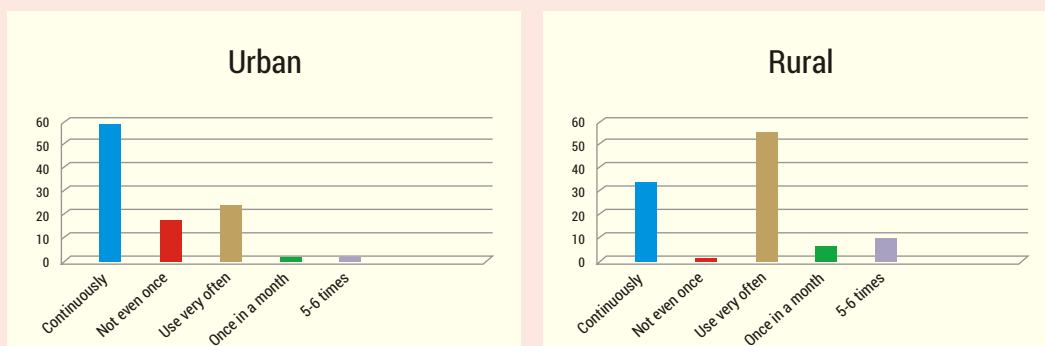


Figure 37 : How many times have you used Mobile Phone in last 6 month? (Urban-Rural)

Almost 58 percent women continuously use mobile phone, whereas 22 percent use it very often, while 16 percent of women said that they have not used their mobile phone in past 6 months. This scenario completely reverses when one ventures into rural areas, wherein mobile ownership is just 20 percent. In some places such as Hanumantia village in Jhabua, ownership pattern declines dramatically due to a couple of incidents of girls getting into affairs and then running away from their homes, thereby creating a perception in the village community that providing mobile is not good for their women. 60 percent rural women respondents said that they share a mobile phone meant for family use, while 19 percent women borrow from others, when in need.

#### 5.4 Mobile usage : Barriers

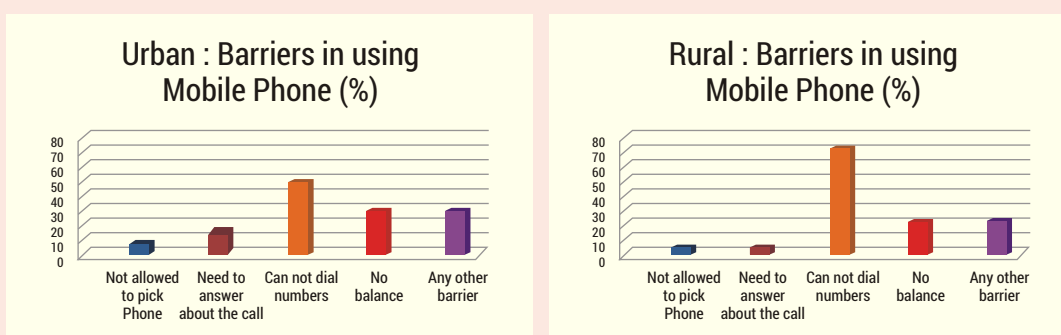
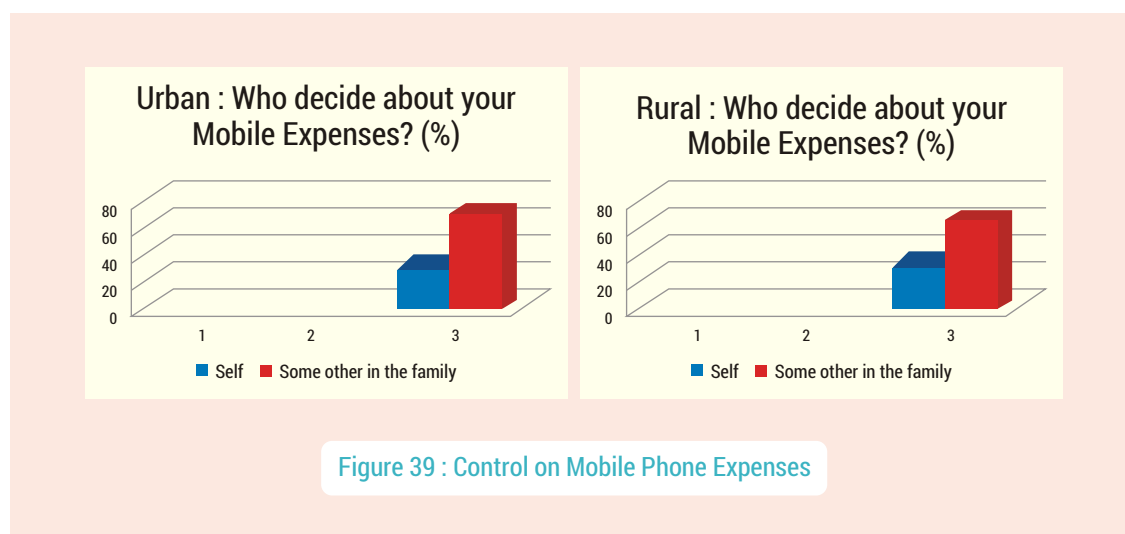


Figure 38 : Barriers in Mobile Phone Use

Almost half of the urban slum dwelling women mobile phone users cannot dial a number. Over 49 percent find this a major barrier in using cell phone. Second barrier is non-availability of balance. According to TRAI, 95 percent mobile phone users in India are pre-paid, so it becomes imperative to recoup the phone with recharge amount for the required balance. However, non-availability of balance for 29 percent of women user signals economic dependence of women users on others in the family. In a typical rural area, the foremost barrier for a woman mobile user is her inability to dial a number. Over 72 percent respondents acknowledged this, while 21 percent complained about non-availability of balance amount. Apart from non-availability of enough balance in mobile phone, more than 15 percent of urban women complained about being questioned by their folks on the identity of the caller and thereon cajoled on the subject of the call.

## 5.5 Control on mobile phone expenses



Mobile phone expense is borne by 'some other' in the family that is what 68 percent urban women respondents said. It is notable that 57 percent urban women users depend on cell phones on sharing basis with their other family members. Although, 30 percent urban women do not have to face such questioning, as they meet their expenses on their own. In rural areas, 65 percent women depend on someone else in the family to defray these expenses. However, 35 percent rural women bear the cost of mobile phone usage themselves, as compared to their 26 percent urban counterparts.

## 6. Internet - Still a 'BIG' thing

Internet, the most disruptively transforming solitary development in the domain of human communication, is indeed a door to the so-named global village. But, for marginalized sections of the society, whether living in urban slums or in remote villages, it is still a big thing. According to TRAI<sup>8</sup>, there are 259 million internet subscribers in India, amongst which the wired internet subscribers are only 18.55

<sup>8</sup> TRAI-Nov 2014

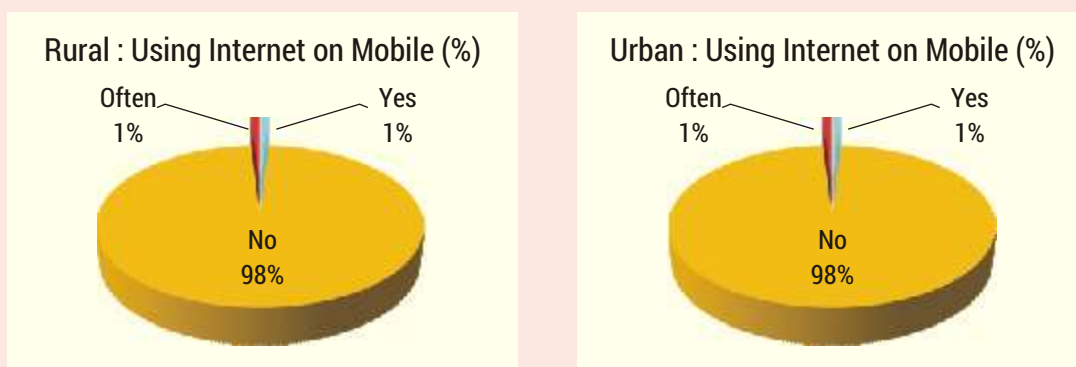


Figure 40 : Mobile Phone internet users (Urban-Rural)

million who are getting at least 512 kbps broadband speed, which they are entitled for. Rest, more than 240 million subscribers use internet on their mobile phones. It means that out of 19 percent population using internet, a measly 4 percent users are wired. IMAI-IMRB report<sup>9</sup> says that there is a net 30 percent addition of women internet users this year. Now women internet users in India are numbered at 20.77 million as compared to 16 million in 2013. But this figure is limited to metros and Tier-1 cities only. The number of school girls in urban India logging online increased 34 per cent to 2.88 million from 2.15 million last year. Non-working women category grew 18 per cent year-on-year to 5.83 million from 4.93 million, while the working women category grew eight per cent to 4.77 million from 4.41 million last year. In urban areas, 60 per cent of the working women and 47 per cent of non-working women access Internet daily.

## 6.1 Accessing Internet

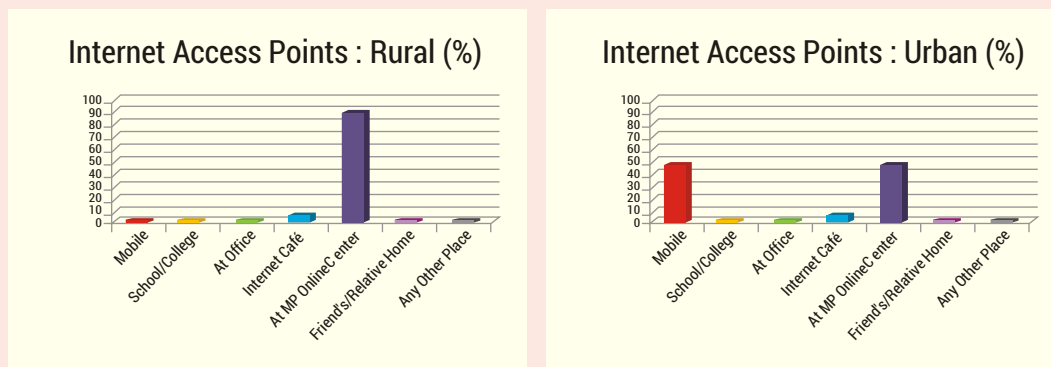


Figure 41 : Internet Access Points

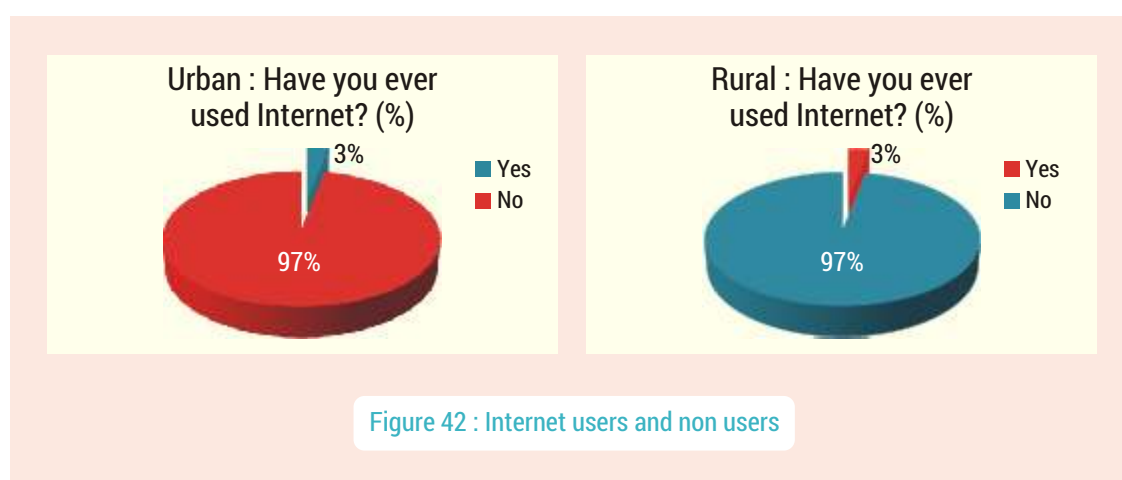
<sup>[9]</sup> [http://www.iamai.in/PRelease\\_detail.aspx?nid=3494&NMonth=11&NYear=2014](http://www.iamai.in/PRelease_detail.aspx?nid=3494&NMonth=11&NYear=2014)



According to TRAI figures, there are 5.66 crore mobile phone users in Madhya Pradesh (August 2014), in which share of rural subscribers is just 15-20 percent. Industry estimates show that out of 1.7 crore mobile internet users in Madhya Pradesh, majority of the users are from the cities.

TRAI only provides telecom circle wise data without further bifurcating it down to the district level. So it is very hard to come to a definite conclusion on who is accessing internet. In Bhopal and Indore, 97 percent urban women residing in slum areas do not access Internet on mobile phone. Although, 50 percent of them have heard about the term internet. Out of the 180 slum dwelling women surveyed, only 6 were found using wire-line internet, which is 3 percent. In rural areas 98 percent women respondents said that they have never used internet.

## 6.2 Reasons for not accessing internet



In Indore and Bhopal, almost 75 percent urban slum dwelling women said that they cannot use internet on mobile phone. Another 11 percent face problems in using internet on their existing handsets, while 20 percent have other reasons for not using internet on mobile phone. For rural women respondents also, using internet on mobile is a big problem. Over 94 percent women said that this is the main problem they face in using internet on a mobile phone. Cost of using internet is not a big issue as 4 percent urban and 5 percent rural women responded positive on this.

## 6.3 Point of access for broadband internet

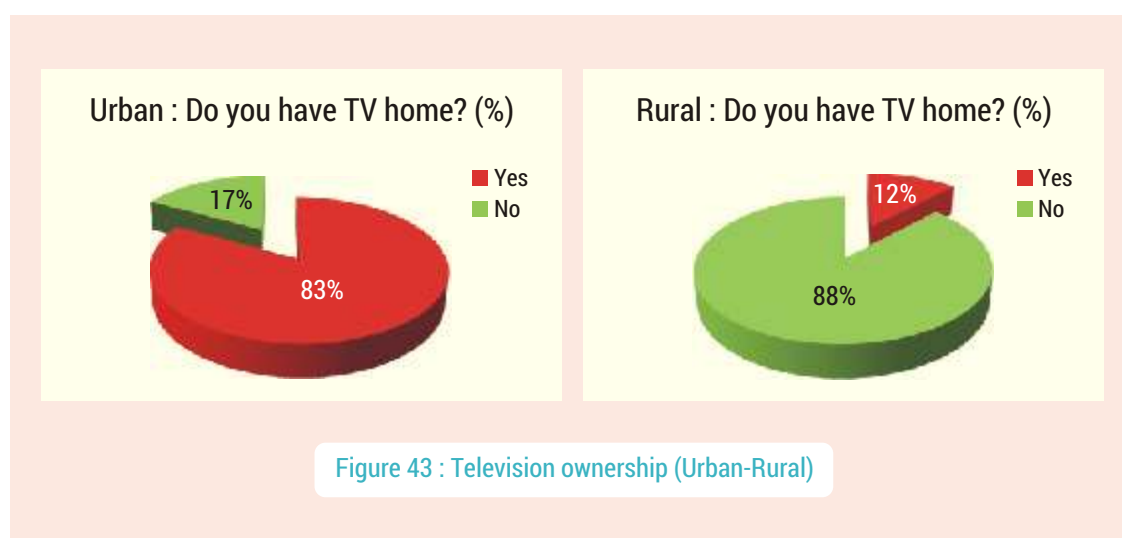
In Bhopal and Indore, slums situated in the heart of the city are surrounded by cyber cafes, online kiosks and mobile phones recharge shops. These access points are located within 3 kilometers distance from these slums. In rural areas, 97 percent women are not using broadband internet. Out of the six internet user women from urban slum area, 4 use it for education related needs like checking exam results, admissions and career related information. Nearest access point for half of them is a mobile handset and for the rest, it is an MP Online kiosk. In rural areas, point of access is largely limited to MP online kiosks and 91 percent women use these kiosks.

## 7 Broadcasting

As per Television Audience Measurement (TAM) annual survey (Universal update-2014)<sup>10</sup>, India has 71 million TV owning urban households and 78 million homes equipped with TV sets in a rural area. Percentage of population having an analogue transmission in urban areas is 36 percent and in rural areas this share is 34 percent. Population viewing terrestrial channels in urban areas is 6 percent, while in rural areas it is 4 percent.

In Madhya Pradesh, 32 percent<sup>11</sup> households have television ownership among almost 1.5 crore households (Census 2011). Amongst them, over 9 lakh<sup>12</sup> households subscribe to DTH (Direct to home). According to TAM figures, over 91 lakh households in the state are equipped with a digitized cable connection. It means that nearly 47 percent households are deprived of digitized channels.

### 7.1 Television Ownership



Both Indore and Bhopal are Tier-1 cities and have been digitized. All the channels that are transmitted in urban areas are digital. In urban slum areas 82 percent women responded that they have TV at home. But in rural parts, 11 percent women said that they have TV at home. The main reason for this is having electricity at home and the geographic location of the village.

### 7.2 Workload taking away from TV

In urban area 83 percent women respondents said that they have enough time to watch television at home. Among those women who do not get a spare time to watch TV, most of them decried excessive

<sup>10</sup> [http://www.tamindia.com/ref\\_pdf/Overview\\_Universe\\_Update-2014.pdf](http://www.tamindia.com/ref_pdf/Overview_Universe_Update-2014.pdf)

<sup>11</sup> [http://www.censusindia.gov.in/2011census/hlo/hlo\\_highlights.html](http://www.censusindia.gov.in/2011census/hlo/hlo_highlights.html)

<sup>12</sup> IMRB and TAM S group study and estimates- September 2014

workload. On the contrary, 61 percent rural women don't get a spare time to watch TV, either due to workload or because TV is not available at the time she wants to see her favorite channel.

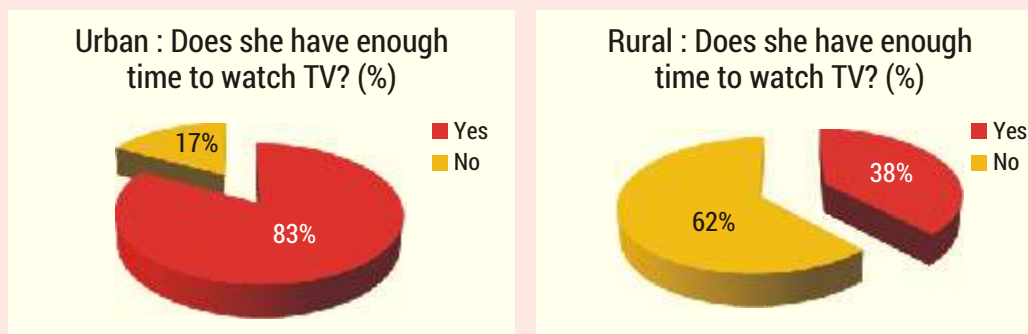


Figure 44 : Workload taking away from TV (Urban-Rural)

### 7.3 Who Controls the TV Remote?

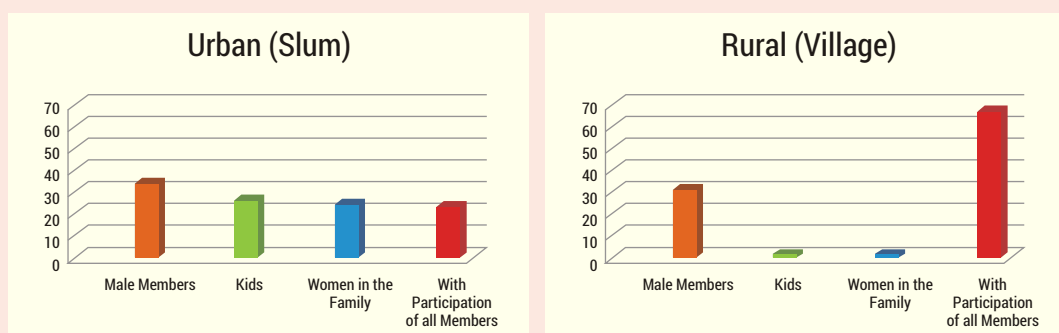
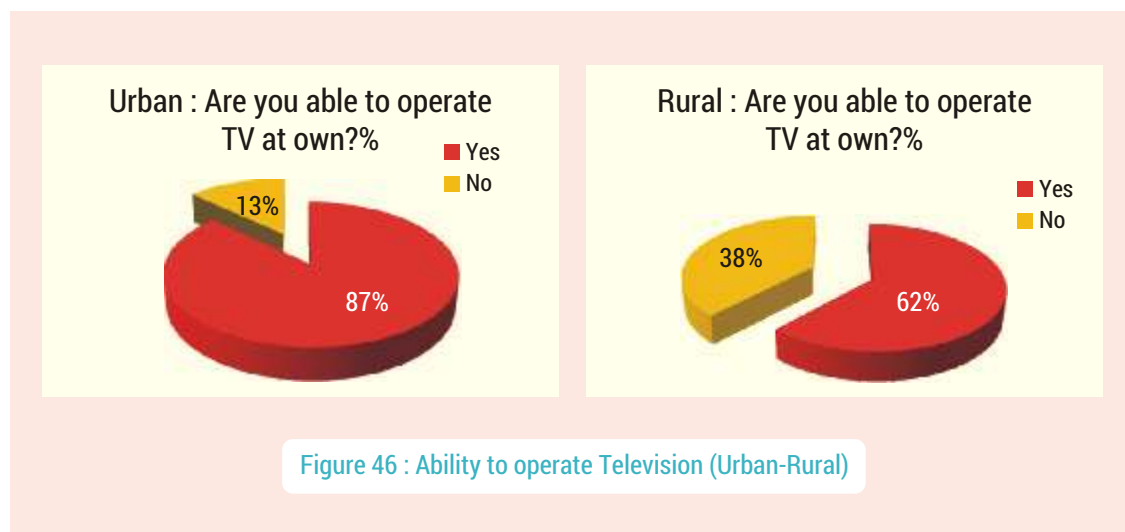


Figure 45 : Who Controls the TV Remote?

About 32 percent urban slum dwelling women responded by saying that it is the choice of their male family members that rules the roost, while 22 percent of these women could lay their hands on the TV remote control device. Over 21 percent said that decision about channels to watch is made 'democratically' at their homes. Rural women are fortunate to have democratic process of selecting the channel of their choice. For about 67 percent of them, content selection is a composite process, wherein the decision is taken collectively. However, 31 percent women said that their male folks dominate in deciding what to see on TV.

## 7.4 Ability to operate Television



In urban area 72 percent women said that they can operate channels on their own. In rural communities, 38 percent women find it hard to operate channels as per their will, while 61 percent said that they are empowered enough to operate channels on their own.

## 8 Conclusion

➤ Technology is indeed a major developmental tool. Mobile phone is a technology which is becoming popular not only in Urban, but Rural area also because of its accessibility. This easy to carry technology is extremely beneficial in empowering marginalized women, both urban and rural. With the help of mobile, urban women can explore options for career development, livelihood and availing utility services. Most importantly, it gives power to communicate express views, share new ideas and enhance decision making power. However the major hurdle which is hampering the accessibility of mobile phones to women from marginalized community is the freedom to use the mobile at their own choice. This is why govt. should focus more on mobile ownership to women.

➤ It is a noticeable fact that adaptability to mobile technology is somehow acquired once the ownership gap is fulfilled. It addresses privacy issues for women. Looking to the mobile penetration rate in rural areas, one could be optimistic about filling this gap positively. There is a hidden need of women oriented mobile services, like balance credit, at least two emergency calling numbers free of cost, informative contents in local language like education, health, sanitation etc. which needs to be tapped. Private Service provider companies should start forming women groups in Urban Slums and Rural area providing them CUG network in a much cost effective way.

➤ Since almost 50 percent mobile users' falls within 15-35 years age group, Telco's should focus in to providing career and employment based services both for the marginalized groups. Women are getting

chances to move to urban centers for jobs. Moreover, they no longer use traditional methods of searching for jobs. Most women now search for jobs by using cell phones and personal contacts. Contents in local language related to job options, career counseling, personality development and management related issues should be prepared and delivered according to the local needs.

➤ Internet is now not an alien technology, especially to urban marginalized community. They have heard and have seen people using Internet on their mobile phone. So the question left is who will empower them with the technology and who will tell them about its benefits. A few private ISP's have initiated the empowerment process with providing smart phone and free data subscription. However, we need more such initiatives right from school level to various women groups, particularly in rural area. Govt. must focus on establishing internet access point at village level to provide online services at doorstep.









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