

BASELINE STUDY ON SMARTPUR

Linking the SDGs parameters with Smart village in Prakasam district, AP



NOKIA



DEF
DIGITAL EMPOWERMENT foundation



About this baseline study:

The Smartpur project aims to create a digitally integrated sustainable rural ecosystem. It works towards this objective through a rural entrepreneurship model by integrating technology in existing uses and practices across six pillars: education, health, livelihoods, financial inclusion, governance, and entertainment. The programme is implemented across 10 districts in 7 states: Haryana (Nuh), Uttar Pradesh (Barabanki and Ghazipur), Rajasthan (Alwar and Bharatpur), Telangana (Yadadri Bhuvanagiri), Andhra Pradesh (Visakhapatnam Parawada Mandal and Prakasam), Karnataka (Chamrajnagar), and Tamil Nadu (Kanchipuram). This study evaluates the project pillars across 3 broad thematic areas within its ecosystem of work: access to information, access to services, patterns of digital use.

This particular study relates to the Yadadri Bhuvanagiri district in Telangana and includes the following villages:

Hub Centre: Chinnakodur

Spoke Centres:

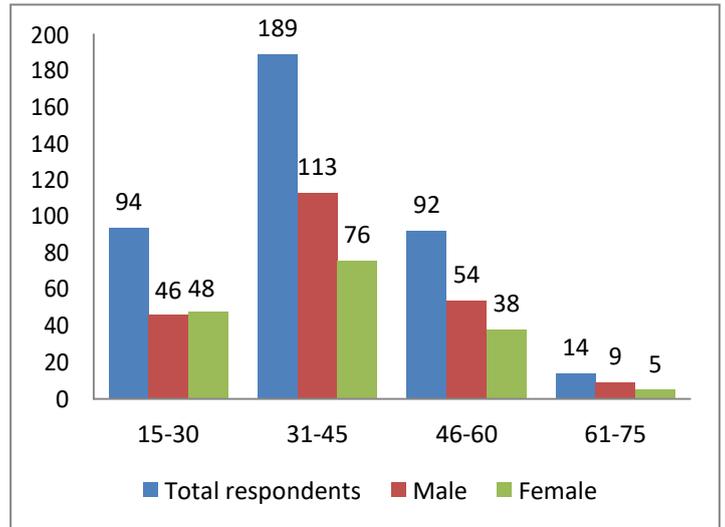
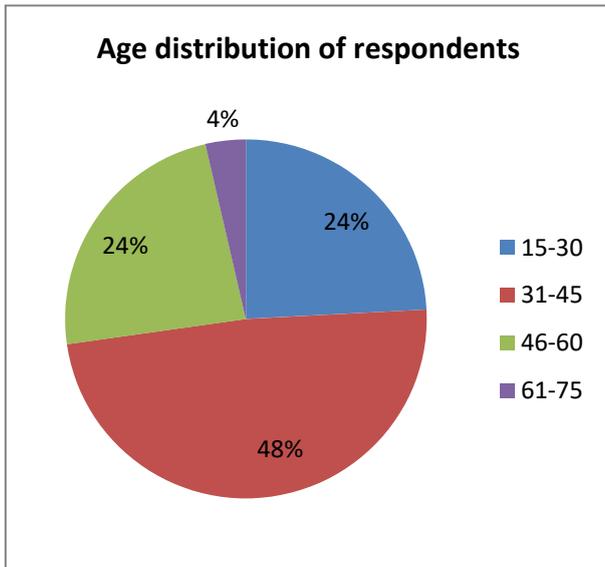
- Malkapur
- Devalamma Nagaram
- Lakkaram
- Nelapatla
- Jai kesaram
- Lingojjudem
- Pantangi
- Jiblakpally
- Vankamamidi

Key findings

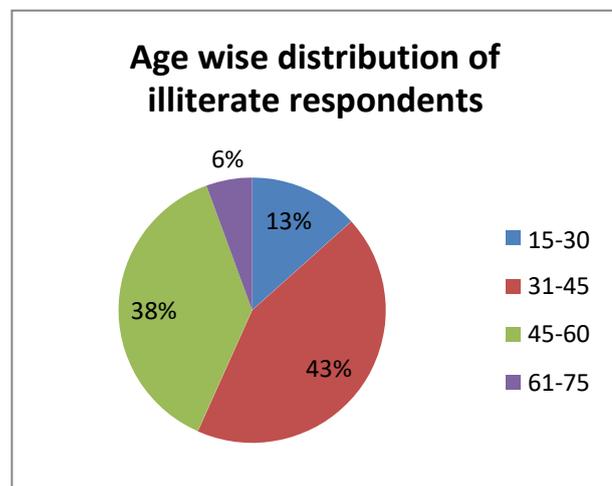
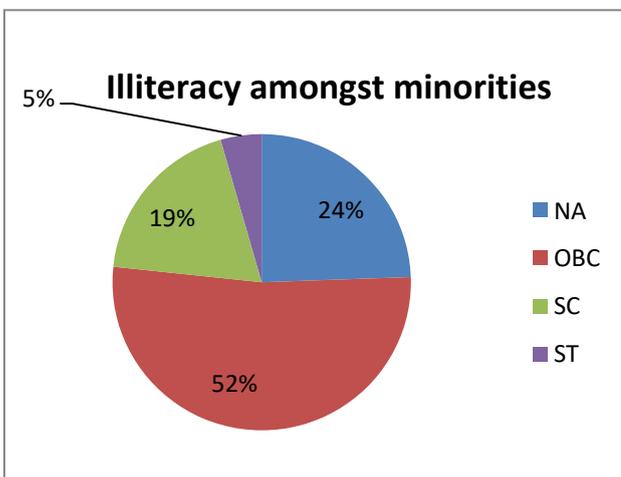
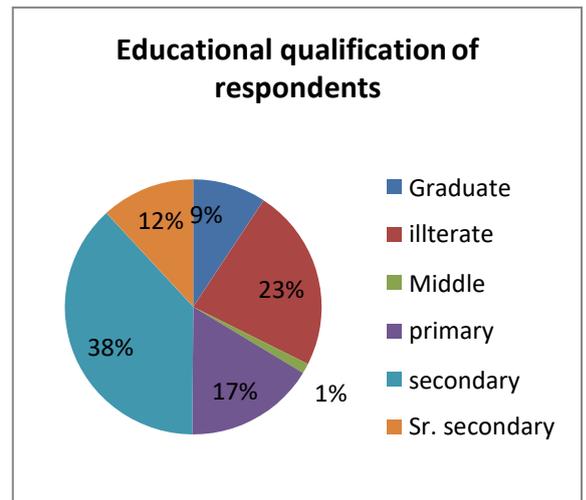
- Common access points like cyber cafes and common service are significant in areas of low connectivity
- ICTs rank the lowest in terms of access to information and services which can be seen with only 23 out of 41 people who responded that their village has digital literacy centre also had internet connectivity.
- Despite Chinnakodur being the Hub, Nelapatla has the highest smartphone penetration with greater access to services and higher levels of engagement in terms of availing digital literacy course, registering on job portals or having vocational centre in the village.
- There is high desirability for training in financial literacy (70%) and vocational training (31%) amongst the population surveyed
- Training in ICT skills rank the lowest within rural capability development, with only 23% of the total respondents' desire for training in ICT skills. This highlights a possibility that ICT skills are not viewed as important livelihood skills
- The awareness about the availability of digital literacy centres remains very low, in villages that have the infrastructure.

Socio-economic and infrastructural context

The survey was done in 9 villages of the Chotupal and Pochampally blocks in the Yadadri Bhuvanagiri district of Telangana. Out of 389 respondents surveyed, 167 were female (43%), 222 were male (57%). Most of the respondents (48%) are in the age group of 31-45 years, followed by 24% belong in the category of 15-30 years and 46-60 years each respectively. Only 4% of the total respondents were in the age group of 61-75 years of age.



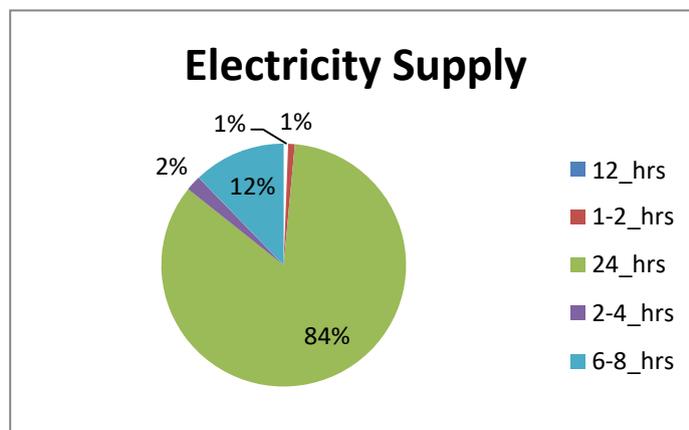
23% of the total respondents were without basic primary education. OBCs formed 52% of the total respondents without basic primary education. Out of 47 OBC respondents, 49% were comprised by OBC women without basic primary education highlighting the high degree of intersectional marginalization. Moreover 87% of those without basic formal primary education are over the age of 30 and above indicating high levels of adult illiteracy. The monthly income of those being illiterate or having primary education is equal to and below Rs. 9000, this shows that the region is doing fairly well in terms of monthly income.



With regards to the patterns of usage of water, 19 of 389 respondents are using tube wells and hand pumps, 2 respondents are using bore wells and 371 have tap water supply. 91% of respondents are using private toilets, while 9% still defecate in open. Out of 34 respondents who are practicing open defecation, 2 respondents (6%) use tube wells, and 32 (94%) have tap – water supply.

A total of 88% responded to having electricity. Of those having access to electricity 2% respondents has its supply for 2-4 hours, 12% for 6-8 hours, 1% for 12 hours and 84% having it for 24 hours. However out of 84% of respondents who replied of receiving 24 hours supply of electricity, 17% are from Nelapatla village and <1% respondents are from the Hub Centre, Chinnakondur. 45 (12%) respondents in total do not have electricity, 44 of these respondents not receiving electricity are from Chinnakondur village (98%). Hence as compared to Nelapatla village which is a spoke centre, the lower supply and availability of electricity in the hub centre can become a bottle neck for anchoring spoke centres.

With regard to the availability of photocopying facility, about 82% of the respondents avail this service within 1 -2km, 12% get this facility in the range of 2-5 km and 6% travel more than 5km to avail the service. Among those availing this service within 1-2km, 14% belong to Chinnakondur, D.Nagaram and Jiblakpally each. 71% responded paying Rs 10 as printing charges and 58% pay Rs 2 for Xerox. Thus most of the respondents are able to avail the facility in a reachable range of 1-2 km, making service of photocopying accessible and saving the loss of wages of the respondents.

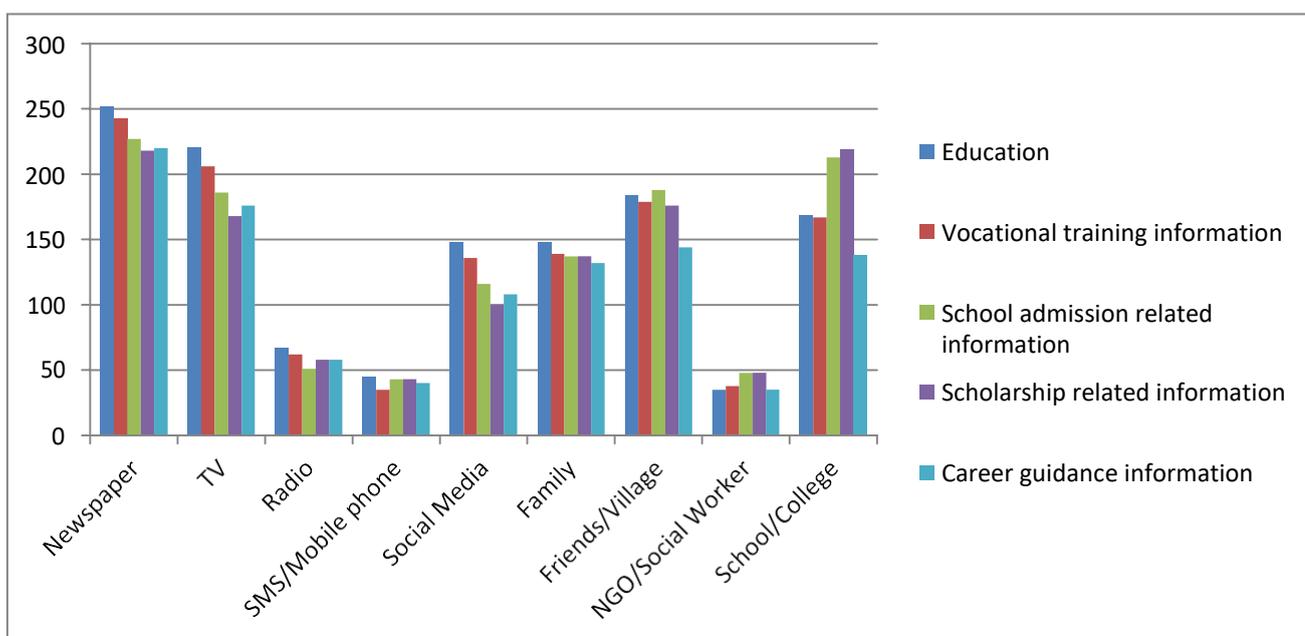


ICT Uses and Practices

Digital media (Smartphone/computer/laptop) penetration stands at 71%. Out of 276 respondents owning digital media, 223 (81%) also own a basic phone. Nelapatla has the highest digital media penetration standing at 17% followed by Lingojigudem and D.Nagaram at 14% each and Chinnakondur at 10%. Out of those owning a basic phone 52% of the respondents have monthly income below 10,000. Calling remains the primary function for which mobile phones are used followed by Text/ SMS and communication (Email & WhatsApp). 27% of the respondents own a memory card; it was primarily used for storing entertainment content like songs, movies/ videos, and photos. 56% of the respondents have an internet connection. Among those having internet connectivity, almost 35% have Airtel connections; the next preferred connections are Idea and Jio at 31% each. Out of 218 respondents who have an internet connection, 40% of the respondents found the connection quality good, 11% find it bad. While only 5% found the quality of the connection satisfactory, 44% didn't respond.

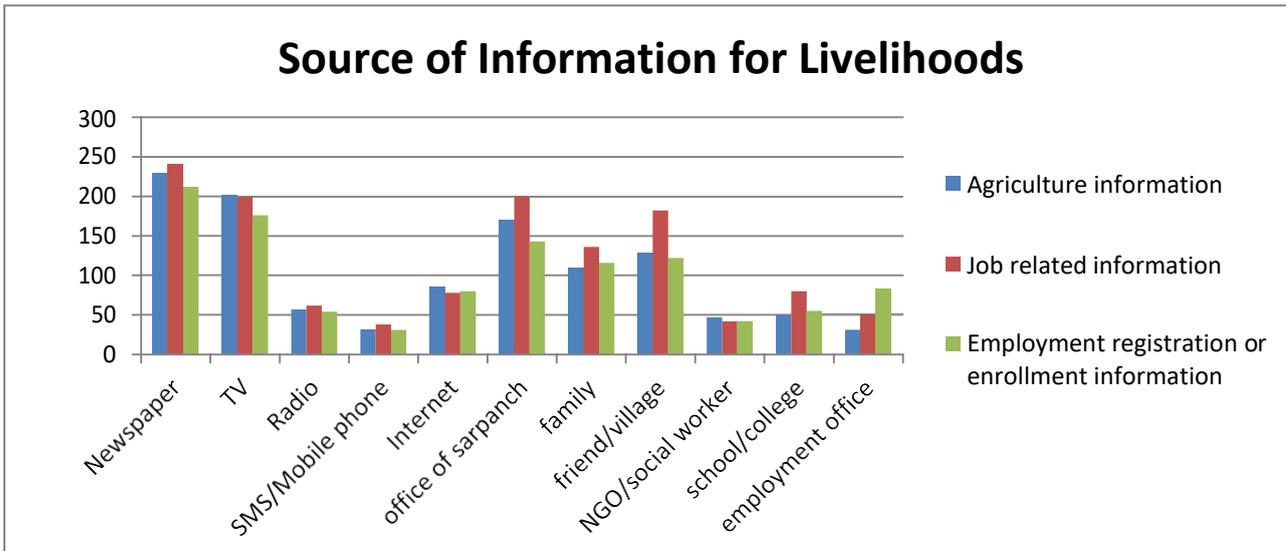
Access to information

Education:



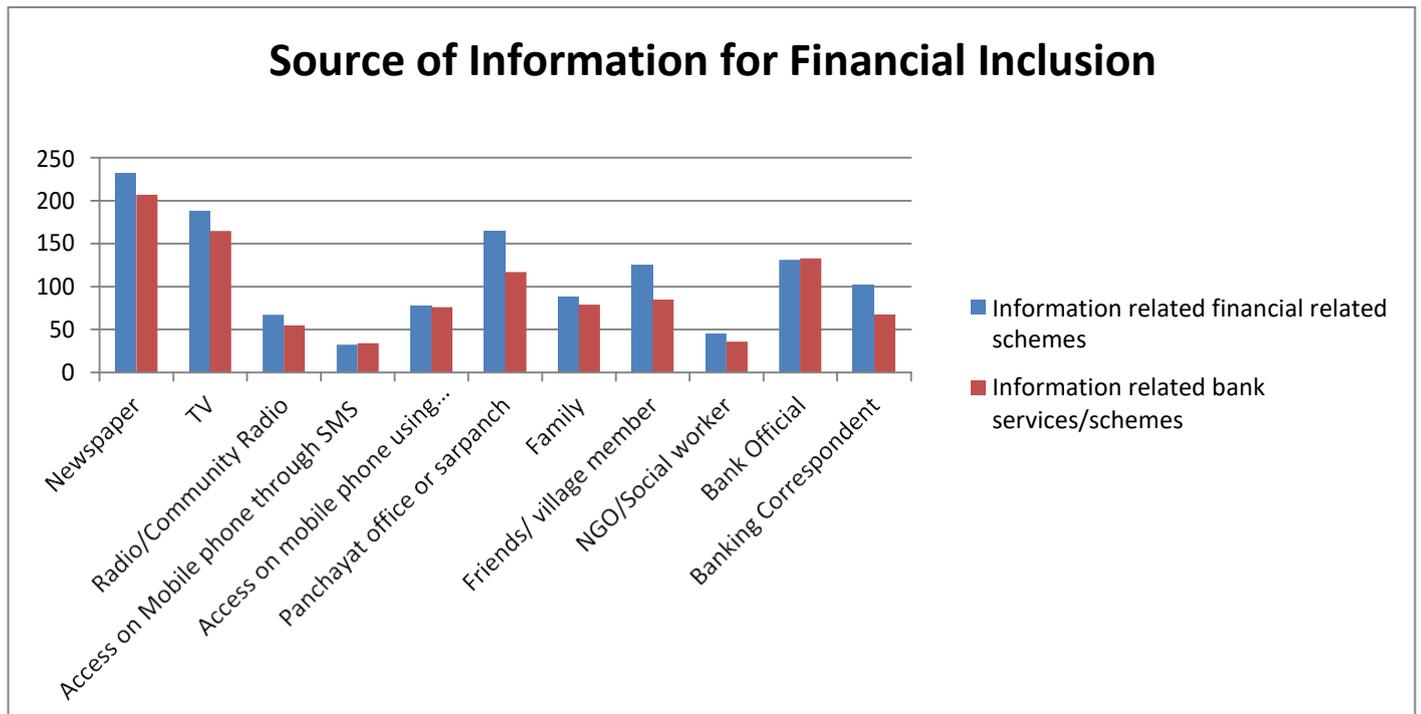
Newspapers are the highest source of information across all education related information categories except for school and scholarship related information in which school/college rank the highest. Overall, Newspapers and television rank as the first and second sources of information respectively. Comparing across information categories with newspapers and television as a source of access to information, Newspapers and television both are more likely to be the source for higher education related information than scholarship related information on which both newspapers and television rank below school/college. Access to information through NGO/ Social Worker ranks the lowest among bottom four along with mobile phones, community radio and social media as a source of information. However, among the bottom three sources of information, access to information via radio ranks the highest outranking the other two across all information categories and access to information via NGO/social worker ranks the lowest.

Livelihoods:



Newspapers, TV, office of Sarpanch and friends/villagers are the highest source of information across all livelihood related information categories. Overall, Newspapers rank the highest for all information categories and remains the widely used medium to access information regarding agriculture, jobs and employments, although it ranks the highest for seeking job related information. However, TV is more likely to be the source of both job related information as well as agriculture related information. . As far as mobile is concerned, their use remains fairly lowest across all the sources. Access to information via mobile phone through internet is mostly used for availing agriculture related information (22%) followed by employment registration (21%) and lastly job related information (20%). Radio is mostly used availing job related information (16%) followed by agriculture related information (15%). NGOs and social workers also have a very limited role in providing livelihood related information. Friends/villagers are mostly the source of job related information with a comparable role played by family.

Financial Inclusion:

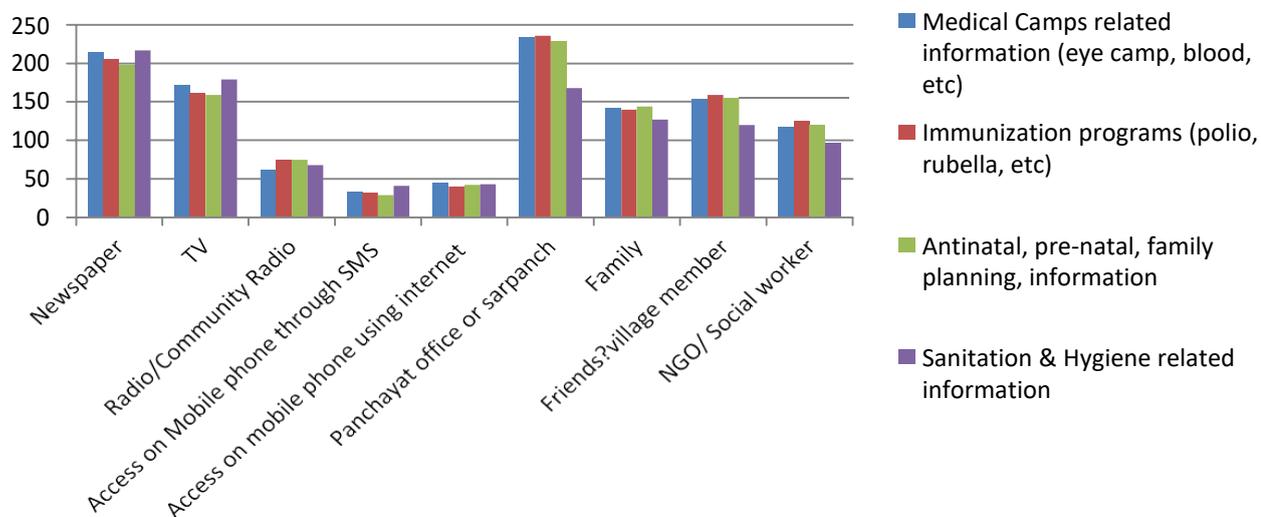


Newspaper is the highest source of information for banking schemes and financial schemes. Newspapers and television rank as the first and second sources of financial information respectively. Panchayat office ranks third in terms of source of information, but it is more likely to be the source of information for financial schemes rather than bank schemes, while banking officials are more likely to be the source of information for bank services/ schemes. This indicates that the potential role played by a stakeholder within an ecosystem is likely to be limited by their operational mandates and interests thereby highlighting the need for anchoring sustainable community-owned last mile access to information ecosystems that are able to serve the diverse needs of the community in moving towards equitable and inclusive development. The information ecosystem in relation to financial inclusion is dominated by mass media like newspapers and TV and stakeholders like Panchayat office

Health:

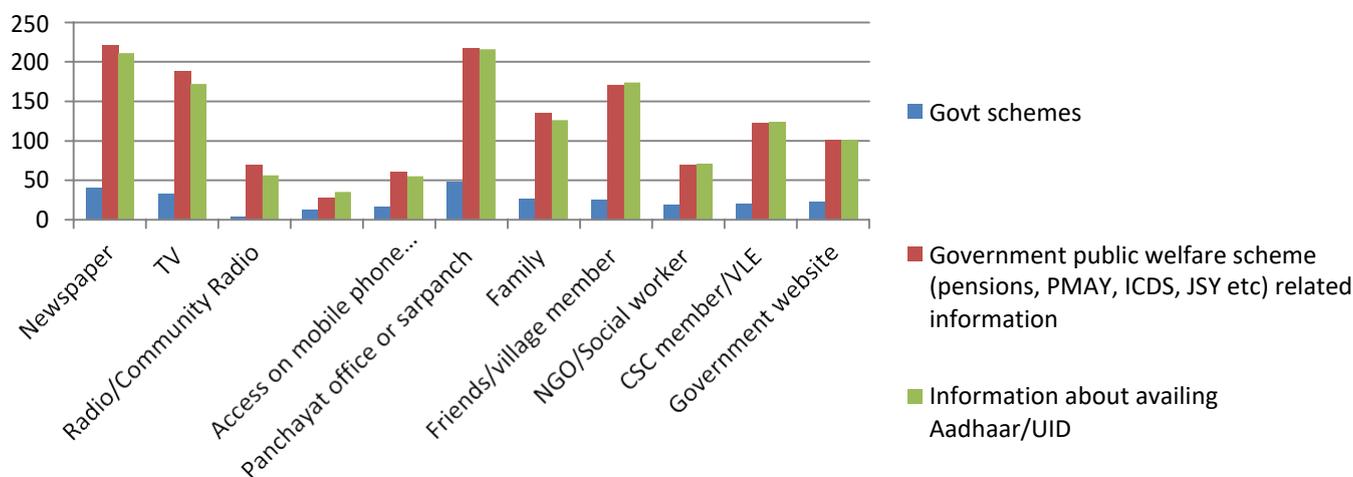
With regard to access to information related to health, Panchayat office rank as the highest source of information followed by Newspapers. There are limited intra-category variation within given sources of access to health information. Given the importance of personal network within this intimate information category, it is important to note that Friends/ Village Members rank higher than Family as a source of information across all information categories. Access to information via mobile phones, whether through SMS or video content storage, or internet, rank among the bottom five as a source of information along with community radio and NGO/ Social Worker. Although access to information via internet is preferred over SMS across the information categories.

Source of Information for Health



Governance:

Source of Information for Governance



Out of 389 people only 16% people are aware of any social protection schemes. Out of the 63 respondents who are aware of government schemes, majority get the information from Panchayat office (12%) and newspaper (10%). Majority of the people receive information related to government public welfare scheme (like pensions, PMAY, JSY etc.) from newspaper information about Aadhaar/ UID from Panchayat office. 48% and 44% of the total respondents (389) get information related to public welfare and Aadhar/UID from Television.

Mobile phones through SMS as well as Community Radio have the lowest contribution. 44% and 43% of the total respondents (389) get information related to Aadhar/UID and government welfare schemes from friends/villagers.

This highlights the important role that Panchayat, as a local governance unit, has within providing information on social protection and entitlements. Access through SMS, Phone Storage has the least contribution. NGO/Social Worker and Community Radio also have a minimal role in providing information regarding health schemes

Access to services

Education:

Only 41 out of 389 (11%) respondents reported having a digital literacy centre in their village. Of all the 41 who reported having a digital literacy centre 31 were from Panthangi village, 5 from Jiblakpally, 4 from Lakkaram and 1 respondent from Nelapatla. These 31 respondents from Panthangi represent 79% of the total number of respondents from Panthangi i.e 39. Out of 8 respondents from Panthangi who did not reports having a digital literacy centre 3 were females and 5 were male.. Further, out of 41 respondents only 4 (10%) have taken up a digital literacy course. Out of these 4 respondents who have taken the course are 2 are from Lakkaram, and 1 each from Nelapatla and Panthangi. Given the increasing importance of the internet in full digital participation, a constraint in limiting full participation in digital literacy courses could be the lack of internet connectivity, where only 23 out of the 41 respondents had reported having internet connectivity. Out of 23 who have internet connectivity only 2 respondents are availing the digital literacy course, thus awareness generation is required for more people to access the services. Thus indicating that despite presence of a digital literacy centre in the village not all might be aware of it

Only 1% (i.e. 5) of the total 389 respondents reported having a vocational centre in their village. All of these 5 belong to Lakkaram village. 75 out of 389 respondents reported having a career guidance centre in their villages. 32 respondents who have a career guidance centre belong to Panthangi village, 16 are from Nelapatla and 11 respondents from Malkapur. This indicates that even if the career guidance centres in present in the village it might not be functional or operating, which is why a significant proportion of the population is not aware of its presence.

Livelihoods:

According to the data collected, Lakkaram village has a vocational training center. Only 3 respondents reported that women from their families go for vocational training 2 women are from Nelapatla village and have to travel 15 kilometers to attend it. Distance of vocational training centers is potentially a significant barrier to women's capability development and barrier to low levels of women's participation in vocational and skills training. 25% of the respondents said that they would like to attend skills training in their panchayat. Only 1 (<1%) respondent has received any agriculture related training or support over last one year through NGO. The training and support related to agriculture is overwhelmingly low.

When the respondents were asked about the skill area in which they have received support or training, 1 respondent (<1%) replied of receiving training in vocational skills, no other respondents had received training in any of the skills except vocational training. Although when asked about the skill areas in which the respondents require training, 70% (272) of total respondents wanted in Financial Literacy, while 30% (117) wanted in Entrepreneurship skills, 31% (120) in Vocational skills, followed by 29% (112) in Leadership and life skill and lastly 23% (90) require training in ICT skills. The training requirement in ICT ranks the lowest; this highlights a possibility that ICT skills are not viewed as important livelihood skills despite technology assuming centre-stage within economy, governance, and society.

Financial Inclusion:

Out of 389 respondents only 50 said that they have Point of Sale (POS) access centre in their area. The villages that reported POS availability are Chinnakondur, Lakkaram and Panthangi. 122 and 124 people have access to banking correspondent and banking kiosk respectively. 53% people know how to use an ATM machine and 63% people have access to debit or credit cards. 62% of the people are not aware of different types of banking available. Out of 389 respondents, 27% prefer direct banking and 4% each prefer online and phone banking respectively. This is because in the absence of access to information and infrastructure relating to alternatives like internet/ mobile/ online banking it is the only form of interface they have had with banks.

Governance:

An overwhelming majority (88%) have not availed any schemes and entitlements. This can be as a result low levels capability with regard to interfacing with e-governance as indicated by 72% who were unable to apply for certificates online. Less than 1% people have reported any type of grievances related to government schemes. This may be because of the low access to information about basic rights and entitlements. Only 67 out of 389 people know about RTI. Among the respondents who availed the schemes and entitlements, social security pensions helped 89% people followed by NREGA with 49% people benefiting from it. Given, a large section of the population lacks access to information about governance schemes which curtails their ability to avail social protection that they are entitled to, this provides scope for intervention with regard to providing last mile access to information through programmatic intervention like the DEF flagship SoochnaSeva and SoochnaPreneur model using designated access points and ICT enabled community members to provide last mile access to information on social protection schemes.

Health:

Only 8 respondents reported having a diagnostic lab in their village. These include 4 from Lakkaram, 3 from Panthangi, and 1 from Chinnakondur. These represent 2% of the respondents from Chinnakondur, 10% of Lakkaram and 84% from Panthangi. 59% of the respondents reported visiting hospital at least once a month and 8% reported having visited a hospital once in a quarter. 359 out of 389 i.e. 92% of the respondents do not have a telemedicine facility in their villages while 22 people did not know what telemedicine was. Out of 8 people who reported as having a telemedicine facility in their villages, 4 belonged to the village of Lakkaram, 2 from Chinnakondur and Jai Kesaram each. Given that only 10% of the respondents from Lakkaram reported to having a telemedicine facility in the village shows the lack of coverage by the available facility and lack of information on the same

Entertainment:

When it comes to availing the local options for entertainment, people mostly prefer going to movie theatre (211), followed by cinema hall (115) and lastly to community hall (74). 62 people prefer going to both cinema and movie hall.

Education:

Out of the 41 respondents who reported having a computer/ digital literacy centre in their village, 37 have not availed a digital literacy course and 31 of them belong to Panthangi. Out of the remaining 4 people who reported as having a digital literacy centre in their village and availed a digital literacy course, 2 belong to Lakkaram and 1 each are from Nelapatla and Panthangi respectively. This underscores a greater need for engagement with the local community with regard to availing digital literacy. 30% of the respondents have registered for higher education course online. However, among the 119 people who register online, 71 reported as having internet connectivity. The gap between low internet connectivity and comparatively higher levels of engagement show that people might potentially be using common access points like cyber cafes, CSC, and schools.

Livelihoods:

6 out of 389 people registered themselves on job portals, out of them 3 were from Nelapatla, 2 from Lakkaram and 1 respondent from Jiblakpally. 4 respondents own digital media and only 1 reported having internet connectivity. Only 2 people reported as using Skype for online job interviews. Out of those who used Skype, modes of access reveal a mix of CSC and CSC as well as mobile phones. This reiterates the importance of common access points for areas with limited internet connectivity.

Health:

Only 10% of the respondents are able to book appointment online while 75% are not able to book an appointment online. Out of the 38 respondents who reported being able to book appointment online 28 are from Lingo jigudem. Cash remains majorly the mode of payment for hospital bills amongst the respondents with 83% (322) preferring it over 1% of respondents who use online mode (5) and card (5) as a mode of payment each respectively. Out of 389 respondents, 71% (276) are owners of a smartphone. 67% (184) of the respondents have smartphone along with active internet connection. Only 1% (2) of these 184 respondents owning a digital device along with internet connection pays their hospital bills online. Only a negligible proportion of the respondents (1%) purchase health related items online whereas an overwhelming 99% do not. Out of the 14 respondents who have health insurance, 6 responded of owning a digital media device along with internet. Out of those who have a health insurance and have reported owning a digital device only 3 renew health insurance online. More people with access to digital media and internet can be encouraged to utilize it in the sector of healthcare. . This signifies that there's a gap between use and access to connectivity and online engagement, i.e. even though people are reported to be using internet connection, still they have a limited online engagement. Thus more information regarding the various other usage of internet in arena of accessing healthcare can be provided to the population at large and providing better quality of internet can help reducing the gap that has been identified above.

Governance:

3 out of 389 reported grievances related to government schemes, all the 3 respondents preferred the online method. Only 16 out of 67 people filed an RTI, out of which only 5 people filed it online. Around 72% respondents were not able to apply for the certificates like birth/ death certificate, Aadhaar card, voter ID etc. online. Out of the 109 respondents who were able to apply for certificates online, 38 were from D. Nagaram, 36 from Jai Kesaram and 20 from Jiblakpally village each.

Out of these 109 respondents who were able to apply for certificates online, 84 (77%) owned a digital media device. Out of 84, 68 responded of owning a digital media device along with internet. This highlights the high levels of digital engagement and interface of citizens in accessing government services.

Financial inclusion:

Only 38% of the total respondents know about different types of banking. Out of 146 respondents who are aware about different type of banking, 27% respondents prefer direct banking followed by online banking and phone banking at 4% each respectively. Out of 389 respondents only 40 (10%) use online mode of money transfer, whereas majority of the people i.e. 292 (75%) still prefer direct banking for financial transactions. 184 out of the total respondents own digital media device along with internet connectivity. A total of 16 respondents are using online banking, 38 have activated internet banking and 63 are making use of online financial transaction. Out of the respondents that have digital media device along with an active internet connection, 13 are using online banking, 17 have activated internet banking and 37 do online financial transactions. Only 28 respondents out of 389 pay their utility bills online irrespective of the fact that only 14 people have activated internet banking facility. With only 47% of the total respondents owning a digital media device with internet, the extent of utilizing digital services for financial purpose remains low; more awareness and digital financial literacy can be generated about the different types of banking, methods, and safety protocols.

Entertainment:

Keeping in line with the patterns of online usages and practices mentioned above, only close to 4% pay for entertainment online. Out of these 17 people, 6 people use apps for online transaction and have activated internet banking. 76 respondents in total responded to using online entertainment. When asked about the type of online entertainment used, 66 respondents (17%) answered YouTube. Out of 66 respondents who responded to using YouTube, 65 have smartphones, 16 have memory cards, and 61 have internet connectivity. This can indicate practices of shared connection and devices usage and downloading and storing content on memory cards to be accessed later, a practice that is not uncommon in areas of low connectivity.

Key Recommendations

Cross-cutting recommendations:

- Understand individual and institutional access requirements that can act as barriers to realising key development objectives across programme pillars
- Develop a strategy to integrate available capacities and institutional and infrastructural presence when defining programme outcomes
- Focus on developing an integrated access to information and access to services ecosystem that takes into account current patterns of online uses and practices with steps to leverage and augment them through sustained and targeted programme intervention
- Identify gaps between available capacities, aspirations, and uses and practices to define horizontal cross-cutting targets required for the overall success of the programme
- Identify how digital media can be used to democratise access to information and access to services
- Identify local institutions and stakeholders to act as nodes to disseminate information and awareness as well as serve to anchor the programmatic intervention in moving towards a sustainable model
- Re-examine relationships between Hub and Spokes

Education:

- Understand and define the functional aspects of digital literacy as per pillar wise requirements and define concrete parameters of measurement
- Identify different learning needs for different demographics with a focus on developing future capabilities in the village by integrating STEM education in classrooms
- Identify key success factors, gaps, and challenges in driving higher digital literacy and engagement in the village Panthangi.
- Generating more awareness amongst villagers regarding available services like digital literacy centres and vocational centres in their villages, its benefits and outcomes.
- Providing training to villagers owning smartphones about the various uses of internet for educational purposes
- Promoting use of digital media for accessing information related to education

Health:

- Recognise the importance of local area camps and drives and the significant awareness component that it holds
- More emphasis can be given in terms of access to information related to healthcare through mobiles and internet facility, along with availing the services of healthcare which are online.
- Increasing awareness regarding telemedicine facility in village and encouraging villagers to utilize the facility.
- Understand the multi-faceted issues in health delivery including but not limited to information, infrastructure, access, and governance

Governance:

- Raising awareness about government welfare schemes, and promoting the use of digital media for accessing information about welfare schemes and services.
- Strengthening local governance institutions



Livelihood:

- Map opportunities for training and capacity-building and potential livelihood opportunities available in the village
- Identify and evaluate potential livelihood opportunities in terms of local viability, feasibility, and sustainability

Financial Inclusion:

- Making people aware about the banking facilities over digital media and strengthening the capacities of banking correspondent for providing information related to financial services and banking schemes.
- Conducting awareness sessions regarding different types of digital banking in the community.

Entertainment:

- Examine individual and community needs for entertainment
- Identify practices for accessing entertainment content online