

Report on 'Solutions Development Workshop'

21st February 2019

Hotel Yak and Yeti
Kathmandu, Nepal



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Introduction

In 2018, LIRNEasia undertook two research projects related to persons with disabilities (PwDs) in Nepal.

The first, a quantitative study leveraged the questionnaire method to interview 400 PwDs from 400 households in 100 wards. The survey was representative of the 15-65 age group of the PwD population at national level. The second study, which was a qualitative study, utilized the focus group discussion method to conducted discussions with 174 PwDs. The study also included 09 Key Informant Interviews and 12 In-depth Interviews with PwDs.

The research highlighted a few key challenges faced by persons with disabilities in Nepal.

A solutions design workshop was convened by LIRNEasia on the 21st of February 2019 at Hotel Yak and Yeti, Kathmandu to brainstorm solutions for some of these issues, and develop policy and innovation briefs based on the suggested solutions.

Prof. Rohan Samarajiva commenced the first session by welcoming the participants and outlining the agenda and the purpose of the workshop. He then shared highlights of the findings from the quantitative research on disabled and assistive technologies. LIRNEasia researcher, Mr. Isuru Samaratunga then took the participants through some of the key findings from the qualitative research. LIRNEasia Junior Researcher, Ms. Samali Perera, then played a [video from Google on assistive technologies](#) after which the brainstorming sessions commenced.

The workshop agenda has been included an annex (see Annex 1).

The list of participants is included below:

1. Prof. Rohan Samarajiva, LIRNEasia
2. Dr. Sujata Gamage, LIRNEasia
3. Ms. Prashanthi Weragoda, LIRNEasia
4. Ms. Samali Perera, LIRNEasia
5. Mr. Isuru Samaratunga, LIRNEasia
6. Mr. Babu Ram Aryal, Centre for Law and Technology
7. Ms. Jalasa Sapkota, Student
8. Ms. Bidhya Rimal
9. Mr. Rom Kant Pandey
10. Ms. Rameshi Bandari, The Nielsen Company Nepal Pvt. Ltd.
11. Mr. Santosh Shreshtha, The Nielsen Company Nepal Pvt. Ltd.
12. Mr. Bishow Joshi, Centre for Law and Technology
13. Mr. Ananda Raj Khanal, National Telecommunications Authority

Issues Identified

The key issues identified through the qualitative research are included in the table below. Annex 2 provides more detail on each of these issues.

#	Problem	Hearing	Visual	Mobility
1	Lack of data on PWDs	Yellow	Orange	Blue
2	Discrimination	Yellow	Orange	
3	Cannot communicate at public places- Hearing impaired	Yellow		
4	Need a sign language interpreter where ever go	Yellow		
5	Communicating with family members	Yellow		
6	Inability of communicating while travelling	Yellow	Orange	
7	Definitions of disability in policies is needed to revisit	Yellow	Orange	Blue
8	Public transport not being accessible and disabled friendly	Yellow	Orange	Blue
9	Quality assistive products are expensive	Yellow	Orange	Blue
10	Lack of awareness among general community about the opportunities for PWDs	Yellow	Orange	Blue
11	Academic examinations not being sensitive to PWDs	Yellow	Orange	Blue
12	Inability to get driving license	Yellow		
13	Education institutions are not inclusive	Yellow	Orange	Blue
14	Study materials not being inclusive	Yellow	Orange	
15	Government websites not being accessible	Yellow	Orange	Blue
16	There are only limited employment opportunities for PWDs	Yellow	Orange	Blue
17	All vocational trainings are not useful		Orange	Blue
18	Not having a customized customer service for PWDs from Telco	Yellow	Orange	
19	Finance institutions not being inclusive	Yellow	Orange	Blue
20	Limited usage of Mobile Applications	Yellow	Orange	
21	High cost Data	Yellow	Orange	Blue

Brainstorming Session

The brainstorming session focused on the issues identified, addressing the different impairments separately. It was highlighted by the participants that policy proposals and innovations should be customized according to the impairment type. Further, the discussion identified the problems encountered by PwDs in public spaces as one of significant issues. The public spaces included public and private transportation, court and schools. Among other significant issues discussed in the session were vocational training requirements, enhancing financial inclusion and customizing telecommunication services. Since there were experts from diverse sectors solutions were perceived from different perspectives. Moreover, participants provided evidence and in certain occasions possible solutions through their immediate

experiences.

Conclusion and Next Steps

The brainstorming session identified relevant stakeholders who could address some of the issues highlighted through the research projects. These stakeholders were not limited to government officers who are working on policy matters, but also innovators and entrepreneurs who are capable of creating inclusive environment for PwDs.

It was decided to invite these stakeholders to the upcoming expert forum. LIRNEasia research findings will be shared at the forum, consequently through the knowledge sharing it is expected to have policy interventions and tech-solution developments in the future.

Moreover, the prioritized issues will be supported by more evidence, some of which was derived from brainstorming session and policy proposals will be drafted with solutions.

Annex 1: Workshop Agenda

	Topic	Person responsible/Moderator
1000-1015 hrs	Introduction	Rohan Samarajiva (RS)
1015-1030	Highlights of findings from quantitative research on disabled & assistive technologies	RS
1030-1055	Highlights of findings from qualitative research on disabled & assistive technologies	Isuru Samaratunga (IS)
1055-1105	Video from Google on assistive technologies	Samali Perera (SP)
1105-1200	Brainstorming solutions for hearing/speech disabled	RS
1200-1300	Brainstorming solutions for sight disabled	RS
1300-1400	Brainstorming solutions of general applicability	RS
1400-1500	Lunch and continued conversation	

Annex 2: Issues Identified from the qualitative research

01. Problem: Lack of data on PWDs

Evidence:

- *Government have made a policy of giving training related to skills development and providing one care taker for those people but problem is that we don't have data about exact number of PWDs in our country. We only rely on population census data beside that we don't have any information about that (KII).*
 - *There were no data taken before 2001. But NFD_N used to push us to do that so in 2001 we use two separate forms; second form was in sampling basis and first was complete. It included everything and was asked with each and every member in every house. And again in 2011, same procedure was adopted where disability was categorized in 8 different parts. That was Physical Disability, Blindness and Low Vision, Deaf- Hard to hearing, Speech Problem, Multiple Disability, Mental disability, Intellectual Disability, Blind- Deaf disability and another was having no any disability (KII).*
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02. Problem: Discrimination - Hearing impaired/Physically disabled

Evidence:

- *Since, we stay at home with other siblings, there are challenges during the distribution of ancestral property. Since, there is no arrangement of sign language expert, we may be at loss. Biratnagar, female, hearing impaired, user*
 - *When I was in school my friends called me (lato) i.e. the dumb hearing problem guy. At that time I was very sad. I could not forget that event in my life.- FGD, Hetauda, Male, Hearing, user*
 - *There is little number of people who can understand our sign language. Those who can understand literally help us but some people even make fun of us-IDI, Kathmandu, hearing*
 - *People help the Visually Impaired person because they can converse but that's is not the case with us Hetauda, FGD with Makes*
 - *While studying Nepali subject we use to face many difficulty they use to help us a lot. Also, in exam we were kept in different class where there were only disable people. This happened till 9 class. We also used to get 15-20 minutes more to complete our exam. But while giving SLC we gave our exam in the same room with normal people. We did not get extra minute while giving SLC.-FGD, Kamalgaupalika, Female, users*
 - *I find main problem in hearing impaired people. Though they look physically fit, they must need interpreter in every work because every people can't understand sign language. So, they are backward as compared to other disabled people.*
 - *When I was young, I felt ashamed I used to hide when guests came to my house. I used to stand on one leg. I used to pray that they won't see me. I used to feel bad. FGD with Physically Disabled Women, Udaypurgadhi*
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03. Problem: Cannot communicate at public places- Hearing impaired

Evidence:

- *If we have stomach ache then since doctor does not understand what we are saying they give us treatment of other things and they provide us other medicines.-Hetauda, female-user*
 - *There are various challenges. Since, there are fewer number of people who use sign language, they do not understand us properly when we are at hospital too. In this regard, there is always high possibility of misunderstanding and hence there are times when we are handed wrong prescriptions. Similarly, when we are at court, they do not understand us and there are high rate of divorces too-Biratnagar, female, hearing impaired, user*
 - *Police do not understand what we are trying to say. At that moment, we need translator.-Biratnagar-female-users*
 - *Difficult to get Doctor appointment, check the medicine, showing the reports to doctor.*
 - *Purchasing drugs, reordering the drugs*
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04. Problem: Need a sign language interpreter where ever go- Hearing impaired

Evidence:

- *I have no difficulties as long as my sister is with me, but if in future, if my sister is not with me, I will reach out to my friends. In addition to this, If there is a sign language helper, I would not face any kinds of problems.-IDI, Hetauda, Female, users*
 - *It is not possible to carry Pen and paper everywhere for communicating. Hetauda , Male .*
 - *Whenever we are faced with a problem, we prefer to take help from deaf committee where there is a translator who can understand us. But, since we do not have income source, retaining a translator is a challenging task. Biratnagar, female, hearing impaired, user.*
 - *We could not hear what people are talking. Since we cannot talk to we have to write in paper in order to communicate with others. Since my writing is also poor, if they don't understand my writing then we have to call language translator in order to translate what we are trying to say. -FGD, Kamalgaupalika, male, Deaf , user*
 - *We wished we had sign language book with us.-FGD, Kamalgaupalika, Male, deaf, user*
 - *Rather than Mobile, a person is much needed. That can translate. Learning the app is easy to us but not for translator. -.FGD, Hetauda-2,male-hearing, user*
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05. Problem: Communicating with family members - Hearing impaired

Evidence:

- *Since, I can't hear and I don't know when it's already morning or not, there have been times people have broken the door down thinking that I may have passed out from drinking and whatnot. I wouldn't know if something has happened outside my home at night. -FGD, Hetauda-2, Male, Hearing, user*
 - *We use messenger and Imo to communicate with others. Video call is difficult since family members and friends might not understand what we are trying to say we chat with them.-FGD, Kamalgaupalika, male, deaf, users*
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06. Problem: Inability of communicating while travelling- Hearing impaired/Visual impaired

Evidence:

- *Since bus driver and conductor does not understand our language, they don't stop the bus in our bus stop. That's the problem I have faced while using public vehicles.-FGD, Hetauda, Male, Hearing, User*
 - *When we ask for discounts, they tend to get angry towards us stating that we are the one that has to get seat too and the discount too. As a result of this frustration, they do not drop us to our destination. Because of this, we have to bow down to them. So, government has to implement strict punishment for those who don't obey the rules.- Palpa, Male*
 - *I normally use apps to make my life easier. But sometimes, mobile do not recognize the word and does not read it. While I am alone, I can not find the street and it gets difficult. Similarly, I can not identify the money, so I use money reader app to identify it. It identifies the note.-Butwal, visually impaired, Male*
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07. Problem: Definitions of disability in policies is needed to revisit

Evidence:

- *Though policies has been made by the government for free health check-up and free medicines, hospitals don't follow these policies, rather they have made their own policies. If someone is fully disable then he or she gets free check-up and free medicines while if someone does not fall in that category then he/she has to pay 50% of the amount while the government of Nepal has mentioned that disabled people should get free health check up.- FGD Biratnagar , Physical Disability , SEC A .*
 - *There is no disabled friendly infrastructure. In hospitals we have to face different hurdles to get free check-ups. Hospital hesitates to give us free services. We have to raise our voice for our right then only we get free check-ups. Government has made the policies of providing some medicines for free for disabled people but we have to pay for those medicines-FGD Biratnagar , Physical Disability , SEC A .*
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08. Problem: Public transport not being accessible and disabled friendly

Evidence:

- *“If disabled people wishes to use the local buses then buses don’t stop for them. They feel that disabled people will travel for free and also they will ask for financial support from others in the bus”.- FGD Biratnagar , Male , Physical Disability , SEC A .*
 - *“Though people have wheelchair, they cannot go wherever they want. Since there is no disabled friendly infrastructure, they have to take help of others while using wheelchair too” FGD Biratnagar , Male , Physical Disability , SEC A.*
 - *“Government has to make disabled friendly technology inside the bus. Though it is mentioned that we get 50% off in tickets but we don’t get any” Male , Physical Disability , SEC A.*
 - *I have to use wheelchair every time, when I try to use public vehicles they charge me Rs 600-700 but they charge normal people Rs 500. Though we should get discount we are paying more. IDI with Severely Disabled, Biratnagar A*
 - *I have to travel a lot. But they never give discount to physically disabled, there is seat separated for physically disabled person but physically fit people never offer that seat to us, there is right mentioned in the law but never implemented. –FGD with Physically Disabled Women ,Udaygadhi*
 - *The buses do not stop thinking we will not pay and many a times I have to pay more than general passengers –FGD with Physically disabled, Biratnagar*
 - *In Kathmandu , the rules are implemented for disabled seats, discounts etc. , but we have to struggle to even board a public transport. Physically Disabled Butwal*
 - *Though, there is a reserved seat for us, but people rarely support the idea. But, recently, new transportation system has implemented the system. We also get discounts in it-FGD, Biratnagar, Female, users*
 - *Real time tracking for most of buses not available*
 - *Online ticket booking – seat booking function- not disabled friendly*
 - *Taxi service apps need to be disabled friendly*
 - *Pedestrian crossing not disabled friendly*
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09. Problem: Quality assistive products are expensive

Evidence:

- *If we go for cheaper version, it will be difficult for us. But, if it is of high quality, it is very much useful for us. Since, government has not provided these kinds of quality devices, we cannot buy it. The cheaper version hurts our ears, emits extra high pitch sound. It would be of great help if government provided us these kinds of quality*
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devices. BIRATNAGAR-FEMALE-USERS

- *The sound of that hearing aid device was so irritating. And I also don't find any differences while using and not using it because sign language has helped me to communicate with others. IDI, Kathmandu*
 - *These technologies are not that useful to us in the sense that we prefer translators over everything and our current focus is in increasing number of translators in our area.-FGD, Biratnagar, Female, users*
 - *I used earphone once. Since I hear disturbing noise I used to have headache. After that I stopped using earphones-FGD, Hetauda, Male, Hearing, user*
 - *If we go for cheaper version, it will be difficult for us. But, if it is of high quality, it is very much useful for us. Since, government has not provided these kinds of quality devices, we cannot buy it. The cheaper version hurts our ears, emits extra high pitch sound. It would be of great help if government provided us these kinds of quality devices. BIRATNAGAR-FEMALE-USERS*
 - *The sound of that hearing aid device was so irritating. And I also don't find any differences while using and not using it because sign language has helped me to communicate with others. IDI, Kathmandu*
 - *There are various technologies like print Dexter, walking device but we do not have the access here in Nepal. –Palpa, visually impaired, Male*
 - *To save audio books on the phone, need a phone or memory chip with high capacity*
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10. Problem: Lack of awareness among general community about the opportunities for PWDs

Evidence:

- *Everybody was so concerned about me that they kept me in the home only. Some times later, my mother came to know about the existence of school for deaf. Then, she admitted me there where they used number of methods to help us speak.-FGD, Biratnagar, users*
 - *We frequently think of providing ICT like foreign country for PWDs in Nepal but in our country main issue is that PWDs is not being able to fulfil basic need. So at first they need to get education, health and job facilities. At least, we should make them capable of using ICT, first (KII).*
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11. Problem: Academic examinations not being sensitive to PWDs

Evidence:

- *While studying Nepali subject we use to face many difficulty they use to help us a lot. Also, in exam we were kept in different class where there were only disable people. This happened till 9 class. We also used to get 15-20 minutes more to complete our exam. But while giving SLC we gave our exam in the same room with normal people. We did not get extra minute while giving SLC.-FGD, Kamalgaupalika, Female, users*
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- *When we had exam centre outside our school, we faced lots of problem there. It was difficult for us to communicate with exam invigilator when we had problem in questions. IDI, Kathmandu*
 - *“I learnt using Braille at that school. our examination pattern are pretty similar which consists of helper. From class 1-9, our teacher used to tell us our question and we had to wait for our turn. We get problems if the question is in picture and mathematics, since we can not see, We can not know what the question is about”.-Palpa, Male*
 - *Talking about the exam thing, it would be very helpful to us if the government only takes the computer typing for the blinds during the exams into action and implement it.-Kathmandu, Visual impaired, Male*
 - *Talking watches are not allowed*
 - *Visuals/diagrams in the papers are difficult to understand for visual impaired*
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12. Problem: Inability to get driving license – Hearing impaired

Evidence:

- **Hearing disabled mentioned this requirement, however they did not want to record any of their explanations, since they are driving vehicles without driving licenses.**
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13. Problem: Education institutions are not inclusive

Evidence:

- *There were no sign language translator. I could not understand what teacher used to taught so I left the school-FGD, Hetauda, Male, Hearing, user*
 - *There are computers at School for mute, so I wish the government would provide good teachers for such students.-.IDI, Hetauda, hearing-user*
 - *It is very difficult because there is no any internet connection in most of the schools related to disability. Only connectivity is not the hindrance, but lack of manpower is also main reason behind it (KII).*
 - *We have policy of making ICT access in schools for disabilities. To achieve this policy, government has kept compulsory computer course among lower secondary and higher secondary schools. Government has also supported financially to purchase computers in most of the schools. We have plan on this but implementation is yet to be done. Some schools have computer as well as internet whereas some have flipcharts and videos classes (KII).*
 - *It is very difficult when you have to leave the house when it is the time to stay with your family and have fun. Also, joining hostel is not easy. You do not get to do what you want to do. I had to collect the thrown copies of others to use. In summary, my childhood was a lot of sorrow and a little happiness.-Kathmandu, visually impaired, Male.*
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14. Problem: Study materials not being inclusive

Evidence:

- *If the school text books are designed using Adobe Illustrator and Unicode then it is compatible with tts (KII).*
 - *I also think that the Nepal government should localize the international made applications in Nepal as well. I know an app named 'BOOK SHARE' which helps to download all the published books internationally and nationally as a pdf file. Similarly, there is an app called 'Marrakesh Treaty' which also makes books easily available and if this app is made available by the government then it may help the people to be more accessed to the bookish knowledge that they cannot get due to the copyright infringement.-Kathmandu, Male*
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15. Problem: Government websites not being accessible

Evidence:

- *I do not use government sites since we can not understand terminologies. If news and stuffs are translated in sign language, I give it a look.-FGD, Biratnagar, Female, Users*
 - *The visually impaired people have a different language format named Web Content Accessibility Guideline. If this is developed to use in the technology then it will be very easy for the blinds to read, download and drop their comments.-Kathmandu, vision impaired, male, users*
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16. Problem: There are only limited employment opportunities for PWDs

Evidence:

- *I work as a waiter in a hotel so no I have not taken job provided by government since competition amongst disable people is higher.-FGD, Kamalgaupalika, male, deaf, users, hearing impaired*
 - *Nepal government should provide job opportunities to people like us. Other organization can bring programs which can helps to build our future FGD, Kamalgaupalika, male, deaf, users*
 - *I had a friend who is also disabled, he passed the exam for the job but he did not took the job since he had to move to another district. Though government has quoted jobs it is very difficult to get the job. But we have not got any jobs as quoted by the*
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government.- -FGD Biratnagar , Physical Disability , SEC A .

- *I make Agarbatti, candle, Phenyl, broom for living. I am married with one son. In my family, I and my wife are one who are blind –Palpa, male, vision impaired, users*
 - *Previously, we used to be desperate to get educated but now since we are educated, we yearn for employment. There is a high rate of unemployed educated disable people. Hence, the change is not enough to deal with the problems created. Palpa, visually impaired, Male*
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17. Problem: All vocational trainings are not useful

Evidence:

- *Not daily but mostly, I work at the fields and sometimes, if any electrical work arises, he messages the other person for work. Other times, I work at the fields.- Hetauda-2-Male-user*
 - *I would focus more on skill training. Since, we can not get a job as normal people, skill training will help us earn on our own*
 - *No I do not work , but help people by repairing their Radio sand Mobile Phones. IDI with severely disabled Rapti Sunari*
 - *I make Agarbatti, candle, Phenyl, broom for living. I am married with one son. In my family, I and my wife are one who are blind –Palpa, vision impaired, male, users*
 - *Difficulty to find markets*
 - *High data cost for Youtube videos, which are used to learn different skills*
 - *Online delivery is not popular*
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18. Problem: Not having a customized customer service for PWDs from Telco

Evidence:

- *Hearing impaired get voice messages from telco service providers when the user's credits on the phone is low.*
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19. Problem: Finance institutions not being inclusive

Evidence:

- *While using internet services, we have to spend lot of money in that. If government had provided with free wifi services then it would have helped us a lot. Though government has provided sim card for deaf people, we cannot video chat with other peoples since it is expensive to video call-FGD, Kamalgaupalika, male, deaf, user*
 - *There is no such difficulties that I face while using these applications. The only problem is while using these applications we have to spend lot of money in data.-Learning-FGD, Kamalgaupalika, male, deaf, user*
 - *We don't use internet services. We just do video chat with the help of the sim that is provided to us by government of Nepal. NTC has given us this benefit to video call without using such apps like Facebook -.FGD, Hetauda-male-hearing, user*
 - *Although I am doing good with my business, everyone has supported it, encouraged me, many disabled have taken skill-based training but what we lack access to is capital, we don't have enough investment. The interest for loan is high. If government could provide us with capital with low interest to buy machines and equipment, then it would be very helpful*
 - *for us. I imagine sometimes that I have big business where other disabled friends are working, I have provided employment opportunity to many disabled friends. My goods being sold to many numbers. I imagine those things.*
 - *"I also use e-sewa to pay electricity bill, drinking water bill and to book ticket when travel through airways."-FGD with Hearing Impaired , Butwal*
 - *Opening bank accounts, e-sewa accounts, ATM not being disabled friendly*
 - *Bank branches are accessible*
 - *Online banking facilities are not popular*
 - *Difficulties of receiving remittances and disability subsidy*
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20. Problem: Limited usage of Mobile Applications

Evidence:

- *Though there are mobile software for deaf people they don't work properly. There is software called Deaf Nepal Learning-FGD, Kamalgaupalika, male, deaf, user*
 - *There is no such difficulties that I face while using these applications. The only problem is while using these applications we have to spend lot of money in data.- Learning-FGD, Kamalgaupalika, male, deaf, user*
 - *We don't use internet services. We just do video chat with the help of the sim that is provided to us by government of Nepal. NTC has given us this benefit to video call without using such apps like Facebook -.FGD, Hetauda-male-hearing, user*
 - *Since I have not studied in my childhood I don't know to use applications. My wife taught me to use Imo so I only know how to use Imo and video call.- FGD, Hetauda, Male, Hearing, User*
 - *We could earn money by staying in the houses by online jobs but since we don't have enough knowledge and skill it is not possible. If we were to get knowledge then we could have also done something with our life.-FGD Physically disabled ,Women's group ,Palpa*
 - *We are uneducated, that is the first reason because there is English language in smart phones, we are literate but if that would have been in Nepali then it would have been easier. There is also Nepali language (for some applications) in there but we don't have that type of trainings, that is why we are unable to use internet and Facebooks.- FGD with Physically Disabled Women's group, Udaypurgadhi.*
 - *I have seen devices that are very helpful for disabled people. Those devices are not in Nepal. If those devices are available in Nepal and I could use, it would have made my life better than this.-IDI with severely Disabled, Biratnagar*
 - *Certain phone types get stuck when using Apps*
-

21. Problem: High cost Data

Evidence:

- *While using internet services, we have to spend lot of money in that. If government had provided with free wifi services then it would have helped us a lot. Though government has provided sim card for deaf people, we cannot video chat with other peoples since it is expensive to video call-FGD, Kamalgaupalika, male, deaf, user*
 - *There is no such difficulties that I face while using these applications. The only problem is while using these applications we have to spend lot of money in data.-Learning-FGD, Kamalgaupalika, male, deaf, user*
 - *We don't use internet services. We just do video chat with the help of the sim that is provided to us by government of Nepal. NTC has given us this benefit to video call without using such apps like Facebook -.FGD, Hetauda-male-hearing, user*
 - *Internet usage is Expensive , till the time I can afford it I will use but if my financial condition becomes weak I will stop using it.. FGD with Physically Disabled.*
 - *I am currently satisfied with my phone but not completely satisfied with it. Since most of the apps requires internet connection and the internet connection is not available freely, it creates the problem.-Palpa, vision impaired, Males*
-