

Access to Information Two Years After an ICT4D Project in Bangladesh: New Digital Skills and Traditional Practices

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Abstract. The continuity of access to information is rarely considered in the design of information and communication technology for development (ICT4D) projects. In this paper, the authors report on the results of a study conducted two years after the end of an ICT4D project which provided 300 Bangladeshi women with smartphones and support services to enable them to access information on agricultural topics. The study shows that although few of the women were still using a smartphone and accessing online information, they still had access to part of the information supplied to them during the project because they had taken the initiative to write it down in notebooks and they had memorised the information they used frequently. However, when they needed to access new information to address new problems, they had to rely on advice from the local agricultural supplies shop. Although the women had developed their literacy skills during the course of the project, and some of them had started new business ventures, most of them did not feel confident enough to select reliable information by themselves and preferred to rely on local “experts”. The authors argue that for an ICT4D project to be successful and sustainable, continued access to the information provided during the project and to up-to-date information after the end of the project should be planned for in the design of the project.

Keywords: ICT4D Evaluation, Information Access, Information Preservation, Women, Bangladesh.

1 Introduction

Information is increasingly provided in digital form and timely access to information has become essential to perform many economic and social activities. However, the cost of digital technologies and the unreliability of Internet access make it difficult for disadvantaged people living in rural areas in developing countries to access information online. Information and Communication Technology for Development (ICT4D) projects have been designed to attempt to bridge the digital divide by developing systems that give disadvantaged communities access to information and communication technologies (ICTs). However, the continuity of access to information previously accessed is rarely considered in the design of ICT4D projects [1]. Projects focus on providing technologies that enable access to information and on supporting the participants with

using the technology during the course of the projects, rather than on the information itself. Long-term sustainability has long been recognised as a challenge in ICT4D projects [2, 3, 4]. In recent years, many ICT4D projects have shifted from studying community services such as telecentres to the use of mobile phones. While longitudinal studies of telecentres over several years have been conducted [5, 6, 7], few researchers have gone back to assess how participants were coping after the end of a project and to evaluate its long-term impact. Moreover, the preservation of information provided to the participants or accessed by the participants themselves during the project is rarely taken into consideration in the design and the evaluation of ICT4D projects. The authors could not find any study that looked at how participants had preserved the information that had been provided to them during an ICT4D project and how their information access practices had evolved after they were no longer provided access to technology. This paper contributes to filling this gap by reporting on interviews with a group of Bangladeshi women two years after the end of an ICT4D project that had provided them with mobile phones and support services for three years.

The Participatory Research and Ownership with Technology, Information and Change (PROTIC) project was a collaborative project between researchers from Monash University in Australia and Oxfam in Bangladesh, which aimed at empowering Bangladeshi women working in agriculture in remote communities through access to information that could help them to improve their agricultural practices. The project provided 300 women in three villages with free smartphones and data packages and developed a series of services to support them, including training programmes and a call centre staffed by agronomists that they could call at any time to ask questions relating to agriculture. In addition, text messages especially designed to meet their agricultural needs and warn them of adverse weather events were sent to them every week. A pilot project was run in 2015, then the selected participants were provided with smartphones and associated support from mid-2016 to mid-2019 [8, 9]. Noticeable improvements were observed during the course of the project in the women's digital skills, in their economic well-being, and in their social status in their communities [9, 10, 11]. Thanks to the support provided by PROTIC, the women were able to start cultivating new crops and to set up some small businesses, such as a chicken farm or an animal vaccination service [12, 13], and they became "information hubs" for their communities with whom they shared the information provided to them [14]. In the last year of the project, researchers also observed that in at least one of the villages, Borokoput, in the sub-district of Shyamnagar, in the south of the country, the participants had developed, on their own initiative, documentation practices to preserve the information that they found useful by writing it in notebooks because they had become aware of the fragility of the digital formats in which information had been provided to them [14].

Two years after the end of the PROTIC project, the authors of this paper decided to conduct interviews with a sample of the participants from Borokoput to assess how they were coping without the support provided by PROTIC, what information they still had accessed to and how they were accessing new information they needed. Due to the COVID pandemic and the impossibility to travel to Bangladesh, the interviews had to be conducted over the phone. After a brief discussion of the methodology used by the authors, the paper presents the authors' findings on phone ownership, Internet access,

continuing use of the notebooks started during the PROTIC project, and use of other sources of information by the PROTIC women two years after the end of the project. Then, the next section reflects on the new skills acquired by the women, the new ventures they were able to sustain after the end of the project and their return to using traditional ways of accessing information. The paper concludes by highlighting the importance of planning for the preservation of information during and after the end of an ICT4D project and facilitating continuing access to up-to-date information to meet the evolving needs of communities engaging in agriculture in fragile ecosystems.

2 Methodology

This paper is based on data from 11 semi-structured interviews with women from one of the PROTIC villages, Borokoput, located in the Southern sub-district (upazila) of Shyamnagar in the district of Satkhira. The interviews were conducted remotely over the phone by the second author between mid-April and July 2021. The interview questions were prepared by the first author as part of a broader study of information access and preservation practices in rural Bangladesh, and the participants were selected by the second author, who is Bangladeshi and had conducted research for her PhD thesis in the same location two years earlier. At that time, she had asked the participants in her study if they were interested in participating in future research and she had collected the contact details of those who had agreed. A new ethics permission was sought from the authors' university to conduct this research, but her previous contacts in the village greatly facilitated the recruitment of participants and gave her an acute understanding of the context in which the participants lived and worked. The fact that the participants already knew her partly alleviated the limitations of doing interviews over the phone. It made the participants keener to participate in the research and made it easier for the interviewer to establish a rapport with them and to probe them for more detailed stories when their first answer sounded like a standard answer rather than their own story. During the course of the interviews, which had to be spread over three months due to the COVID situation and to time constraints both on the interviewer's and on the participants' sides, the questions were refined based on previous answers in an iterative process. All the interviews were conducted in Bangla and at the day and time that suited the participants. In this paper, the interviewees are referred to by the pseudonyms of PS1-PS11 to preserve their anonymity.

3 Phone Ownership and Access to the Internet

At the end of the PROTIC project, the women had been allowed to keep the smartphones, but by then some of the phones were no longer working, and many stopped working in the following months and proved too costly to repair. Among the women we interviewed, 2 out of 11 were still using the PROTIC phone, 4 were using another smartphone and 5 were using a feature phone with no Internet access. This proportion does not appear to be representative of the number of PROTIC women in the village who are still using their PROTIC phone or have bought another smartphone.

Although we have not yet been able to conduct a survey of all the PROTIC women, comments made by the women we interviewed indicate that the vast majority of the PROTIC women are now using feature phones with no Internet connection and only a small number of them are using a smartphone, either the PROTIC one or a newly-acquired one. Comments made by some of the interviewees indicated that buying a new smartphone was not a priority for them. However, we decided that it was important for us to talk with several women who were still using a smartphone in order to understand how they were using their phones to access the Internet and search for information.

One of our first and most important findings is that although women may own a smartphone, their Internet access was very limited because of the cost of data packages. Among the 6 women with a smartphone we interviewed, only one had Internet access all the time. The others could not afford to buy data packages all the time; they bought one when they found a good deal. As a result, they may have Internet access for only one week per month if they bought short-length packages or stay without access for months at a time if they were waiting for a better deal. Among the women who only had a feature phone, only one said that she occasionally used her husband's phone to access the Internet.

The interviewees estimated that around three quarters of the information provided by PROTIC was still useful to them. In particular, they still used the new farming techniques to grow vegetables in saline soil that they had been taught, such as the "tower method" which consists of digging 5.5 feet deep, lining the hole with polythene, then filling it with sand, straw, soil and organic manure (in that order) before planting vegetables. Two women also cited the example of vitamins for plant buds as a PROTIC tip that they still used. However, pests had become resistant to pesticides and new diseases had appeared that required new forms of treatment and therefore new information on how to deal with them. All the women said that they had encountered many new problems for which the solutions suggested by PROTIC were no longer effective. For example, a pesticide spray for mango trees recommended by PROTIC no longer worked and the villagers had not found an effective replacement. In other cases, the dosage of pesticide had to be increased because the insects had become more resistant. Therefore, the women had an acute need to access new information.

4 Access to Information

4.1 Access to Online Information

As a result of having limited access to the Internet, our interviewees did not often use the Internet to look for information to solve agricultural issues. The only woman who had constant access did not use the Internet on her phone to look for agricultural information, but she used it to look for patterns for her tailoring business. Among those who had intermittent access, only one reported using the Internet frequently to look for information related to agriculture or animal husbandry. PS5 said that she often looked for videos about goat-rearing. Having received training on goat vaccination during PROTIC, she had become an expert on goat-rearing in the village and started an animal vaccination service from her home. She said that she often downloaded videos to watch

them on her phone and that she kept those that included important information for future reference. The other women who had occasional Internet access did not often perform Google searches to look for agricultural information because they found it difficult to evaluate the reliability of the information that they could find that way. As PS2 commented, “we used to blindly rely on PROTIC, but we can’t trust Google completely”. She stressed that if the wrong treatment was applied to cows or goats, the animals could die and that therefore “we cannot really rely on the Google information without consulting with an expert”.

Five out of the 6 interviewees who had Internet access used Facebook to keep in touch with friends and relatives and, in some cases, to get agriculture-related information through pages that they had previously liked. The woman who had Internet access but did not use Facebook said that she had problems using the app and that she was waiting for her daughter to help her with it during her next time visit. Two women said that they occasionally used the agricultural app Krishoker Janala (Farmer’s Window) which helps farmers to identify plant diseases by looking at pictures (<http://krishokerjanala.com/krishokerjanala/home.html>), but that this app was not always useful because it was not updated. Among the women who only had a feature phone, only one occasionally used her husband’s phone to access the Internet, but it was for searching for job advertisements as she was looking for a job, not for agricultural information. None of the others used a relative’s phones to access the Internet.

4.2 Use of Notebooks

Only one of our interviewees still had the text messages sent by PROTIC on her phone. The other woman who still used her PROTIC phone had lost all her text messages when her phone got damaged and was reset. None of the others were able to recover their text messages when their PROTIC phone stopped working. However, most of them still used the text messages and other information they had written in their notebooks during PROTIC and continued to write new information that they found useful. Research conducted during the last year of PROTIC [14] showed that some PROTIC women from Borokoput had started writing down in notebooks the texts of the SMS they received as part of the project after several incidents in which SMS had been lost when phones went for repair. This made them conscious of the fragility of the information provided to them in digital form and they decided to create analogue backups, which they felt would last longer. They also wrote down in the same notebooks information they received from the call centre, such as the names and dosage of medicines, which they thought they might need again later.

Two years later when we conducted our interviews, most women were still using those notebooks. All our interviewees had used a notebook to record information during PROTIC. Two of them had copied all the text messages and information they had been given, while the others had only written what they found particularly relevant to their personal situation. For example, PS5 who had trained in goat vaccination, copied in her notebook all the text messages relating to goats and other domestic animals. All the women we interviewed still had their notebooks, except for two who had lent theirs to a friend or relative; and the majority of them still consulted their notebooks when they

wanted to check some information. However, all of them had memorised the information they used regularly and, for that reason, they did not need to check their notebooks very often. Yet, the notebooks could prove very helpful if they wanted to start a new activity that they had not done before. For example, when PS11 recently started raising goats, she looked in her notebook for the text messages relating to taking care of goats, which had not been useful to her when she received them, but which she had carefully written down for future reference.

Moreover, the women continued the practice of writing in a notebook, which had not been something they were accustomed to doing before PROTIC, but was a new skill they had developed during the course of the project [14]. More than half of our interviewees (6 out of 11) said that they wrote it in their notebooks when they discovered new useful information, for example the cure for a new disease or the new dosage for a pesticide. Several of them explained that they did not write all the information they found, but only what had worked for them as they often had to try several remedies before finding one that worked. As PS8 said, "I lost one of my chickens although I applied the medicine suggested by the shopkeeper. So, there is no point in writing that down!"

All the interviewees said that they had memorised the information that they used frequently. This is consistent with traditional practice in Bangladeshi villages where information is usually communicated orally and memorised. In Borokoput, traditional remedies for agricultural problems or cures for health issues are preserved in the memories of elderly people and are not written down. The PROTIC women had memorised the information they were given during the course of the project, in particular the information they used regularly. Therefore, they did not need to check their notebooks frequently. They only did so for specific information (such as medicine dosage) that they had not used for some time. For example, PS8 explained that

I have been using that information for quite a long time. So most of the things that I need are fresh in my memory. But if I am using any medicines or remedies for any plant diseases or for my poultry, I make sure that I follow the instructions exactly. If I am unsure about anything for any reason, then I look in my notebook.

In particular, they did not write down the farming techniques for which they received detailed instructions during training sessions. In PS7's words: "There is too much information related to that, that's why I did not write it, but at the same time I did not need to as it is well set in my memory". The women felt empowered by the information that they had learnt and memorised. PS9 declared: "I know so many things... That information is in my mind."

4.3 Other Sources of Information

The women also sought information from other PROTIC women in their village who were more experienced in some techniques. Several mentioned that they kept in touch with the other PROTIC women and called them when they encountered a problem.

PS11 who recently started rearing goats said that she was taking advice from PROTIC women who were more experienced in goat-rearing. However, the interviewees had lost contact with the PROTIC women who no longer had a phone and did not live close to them.

Neighbours who may be experiencing similar problems were another source of information. Information on which new treatments worked was commonly shared between neighbours and relatives so that others did not have to go through trials and errors to find a solution to the same problem. Interviewees also reported using their feature phones to call relatives who lived far away and had expertise in a particular area. One woman said that she got useful advice from her uncle who was operating a chicken farm in India when she could not get useful information locally.

When they needed advice on a new problem, the women we interviewed commonly asked their husband or another male relative to go to the “medicine shop” which sells agricultural supplies including medicines for animals and pesticides in the nearest bazaar. In accordance with Bangladeshi village customs, women rarely went to the shops themselves. Some of the women were happy with the services that the owners of the medicine shop offered. PS10 commented that during PROTIC, they had to go to the shop anyway to buy the medicine suggested by PROTIC, but that now they were getting both services from the same place: the advice and the product, which she found convenient. However, the products that the shopkeepers suggested did not always work. This may be because they recommended generic treatments. For example, one woman (PS7) explained that the dosage of pesticide recommended by the shopkeeper burnt the leaves of her plants; she then sent her husband again to the shop and the shopkeeper recommended a lower dosage because her plants were younger than he had thought. She commented that he had not asked the size of the plants before prescribing the pesticide whereas the PROTIC call centre operators used to ask all the details. Another woman (PS8) said that she lost one of her chickens when she applied the medicine suggested by the shopkeeper.

A government Agriculture Extension Officer and a Fisheries Officer, as well as a livestock hospital offer free services in Shyamnagar, the sub-district (upazila) town. But, the women did not often go (or send someone) to consult with them because Shyamnagar is too far away from their village. In addition, their advice may be very generic too. PS2 reported that she saw the Livestock Officer at the Upazila Livestock Hospital dispense the same medicine for different problems. The women rarely called the Agriculture Extension Officer because they knew that he was very busy and might not be able to answer their call or to come and assess their problem. In some cases, he was able to solve their problems; in other cases, he came too late. PS5, who specialised in goat rearing and called herself a “doctor of goats”, was the only one among our interviewees who used those services regularly. She had developed a good relationship with the Livestock Officer at the Upazila Livestock Hospital and phoned him often when she had questions. Furthermore, she said that she had other doctors’ phone numbers that she could call if he was busy.

5 Continuity and Change: New Skills and Return to Traditional Practices

5.1 New Skills and Self-Confidence

When asked how well they are managing their agricultural practices two years after the end of the ICT4D project, 3 of our interviewees said that they were doing well, 3 said that they were doing well, but that their situation was harder than before, and 5 said that their situation was very difficult and/or that they felt helpless without PROTIC. However, in the course of the interviews, they all made comments and told stories that enabled us to draw a more nuanced picture of their life after PROTIC. Some women first said that they were doing well, then in responses to other questions, talked about serious problems they had faced due to the unavailability of timely information. Conversely, some women first said that their situation was very difficult without the support that was provided by PROTIC, then told stories that showed that they had adapted relatively well and had been able to access other sources of information. What is clear from all our interviews is that new problems had arisen in the village in the previous two years for which the women and their community had to find new solutions. It is in their assessment of how easy it was for them to find new solutions and how effective these solutions were that they differed. These differences can be related to individual personality traits, such as their level of optimism and their confidence in their own abilities, to personal preferences, and to the severity of the specific problems they encountered.

Some of the women felt that they had become more confident, more knowledgeable and more independent thanks to the digital skills and the technical skills they had acquired during PROTIC. They valued the new agricultural techniques they had learnt, as well as the digital skills that enabled them to use their phones to search for information. PS9 commented that:

As a result of my journey with PROTIC, I became more confident taking care of my goats and vegetables. And I know so many things and I don't need to search on the Internet for everything. The information is in my mind!

She added that she had not yet encountered problems that she could not solve. Other women had acquired skills that led to an income opportunity that was continuing. For example, PS5 who was vaccinating animals and called herself a “doctor of goats” continued to build her expertise through searching information about goats on YouTube and had developed a network of experts whom she could call when she encountered new problems. Even a woman who was finding it hard coping without the support previously provided by PROTIC admitted that PROTIC had changed her life and that what she had learnt from PROTIC “can't be learned anywhere else”. And after telling how she went alone for a job interview in a town she did not know and used the Maps app on her phone to find the location, she concluded: “I have become so self-sufficient today thanks to PROTIC!” (PS2).

On the other hand, some of the women felt let down at the end of the project. In PS4's words,

We used to feel like we have a guardian who could save us from every possible problem we had regarding plants or our animals, but now we feel helpless without that support. Our plants and domestic animals suffer more and we struggle a lot to save them by managing some remedies on time.

Some women had to abandon ventures that were no longer profitable (e.g. selling mobile data packages), or stopped cultivating certain crops due to the lack of support. For example, PS6 had started a plant nursery but was not able to keep it going due to the lack of information and support. Some of the women did not feel that they had developed the ability to evaluate information sources found online and to select the most reliable ones or the ones that were applicable to their case. PS2 declared: "Google shows about 14 different medicines for a single problem; we don't understand which of these drugs will be useful, so we can't take any risk!"

Those who felt less confident in their abilities had reverted to the pre-PROTIC practice of relying on the medicine shop in the local bazaar. During the course of the project, the women had been introduced to the Agriculture Extension Officer and to the Fisheries Officer from their sub-district and they came to see them as people they could contact if they had problems. However, they rarely did so because they understood that they were too busy to answer every query and that therefore, it might take too long before they came and assessed their problem if a visit was required. Therefore, they usually resorted to sending someone to the medicine shop in the local bazaar and to buying the medicine or pesticide suggested by the shopkeeper.

The type of phone owned by the women impacts on their ability to access information online and to bypass local intermediaries. Two out of the three women who felt that they were doing well owned a smartphone, whereas three out of the five women who said that their situation was very tough only had a feature phone without access to the Internet. However, this is not the only factor. One woman who only had access to a feature phone felt that she was managing well and did not mind relying on the medicine shop for advice. On the other hand, two of the women who said that their situation was very difficult owned a smartphone although they did not use it much to access information due to the cost of Internet access and to their lack of confidence in their ability to select reliable information.

All the women we interviewed understood that problems should be treated differently depending on their level of severity. Simple problems could be treated by using traditional remedies or the cures suggested by PROTIC if they still worked. However, if the problems were more serious or if those solutions did not work, and they faced the risk of losing their crops or their animals, they understood the need to consult with experts, such as the Agriculture Extension Officer, a vet, or the owner of the medicine shop. Those who were cultivating more land or breeding larger animals, such as cows and goats, would face a bigger loss if they used a wrong treatment due to the higher

value of their investment. For example, PS11 who had recently started rearing goats said that “if anything happens to them, I will count a big loss”.

Some women had already incurred considerable losses due to the lack of timely information. For example, PS4 lost 80% of her mango trees due to insect infiltration, which affected her whole community. Some of her neighbours talked to the Agriculture Extension Officer and used the remedies that he recommended, but nothing worked.

During PROTIC, the project participants had become sources of information for their community. Their neighbours and relatives came to them when they had questions and if they could not answer them, they could call the PROTIC call centre to ask their questions. They did so readily and, thereby, became informal “information hubs” for their community. Two years after the end of the project, this did not often happen anymore because their friends and neighbours knew that they were no longer receiving information. Still, people sometimes came to them and they helped them if they could, but often they did not know the solution to their problems. Several women commented that they had become more careful in sharing information because they did not want to share something without being sure that it would work. With information provided by PROTIC, they knew that it came from a reliable source and that it had been checked by experts. With information they found themselves online, they could not be so sure. Therefore, they preferred to be cautious and to advise those who came to them to call the Agriculture Extension Officer or visit the medicine shop. However, PS5, who had become an expert in goat-rearing and animal vaccination was still receiving many queries from PROTIC women and other villagers, and was still able to help them. When she did not know the answer, she searched the Internet, called one of the vets that she knew well or some of her relatives who were also experienced in animal husbandry.

5.2 Timeliness and Quality of Information

There were two big issues with the information sources available to the interviewees. The first one was their timeliness. The second one was the quality of the information. The women found it difficult to get timely information due to their distance from potential sources of information in the sub-district town, the cost of travelling there, the limited availability of the Agriculture Extension Officer and the cost of using private services. PS11 commented:

PROTIC solutions were timelier and more effective. Whenever needed, I could call them and they helped us... and the medicines they suggested, most of them worked very well... But, now, you know, getting timely support is difficult, and in addition that support is not free and not as effective as PROTIC... Now we sometimes count a loss because we cannot manage timely support.

PS3 complained that travelling to Shyamnagar to seek the advice of the Agriculture Extension Officer was a “huge waste of time and effort”. This was even more so if the suggested remedy did not work. PS2 travelled to the Livestock Hospital in Shyamnagar, but the treatment recommended by the Livestock Officer for her ducks did not work.

She then had to travel to the local market and consult a private vet, who charged 150 taka (US\$2) for a visit, a considerable amount for her.

One type of information that the women especially missed was the weather-related text messages that were giving them advance warnings and time to prepare for incoming disasters. Nothing had replaced those advanced warnings. Villagers watched the weather forecast on television or read newspapers online. In case of cyclones, public announcements were made over loudspeakers in the village, but these came too late and gave the villagers hardly any time to prepare themselves and their crops and animals.

Moreover, no service available to the women was comparable to the PROTIC call centre which had been providing the PROTIC participants with information that was timely, localised and reliable. The majority of our interviewees said that this was their preferred way to access information. The women who still have Internet access two years later may be able to access information quickly, but they cannot be sure of the quality of the information or of its suitability to their village's agricultural conditions. More reliable information can be obtained from the Agriculture Extension Officer or the Livestock Officer, but it may take too long and come too late. The medicine shop is closer than the free services in the sub-district town centre and more reliable than randomly chosen information found on the Internet, but it is not comparable to the service that used to be provided by the PRODIC call centre which was staffed by agronomists and provided quick information especially developed for their village.

The prominent role played by the local medicine shop as a source of information on agricultural matters exemplifies a return to traditional sources of information in the village. However, at the same time, some of the women have become more confident in their abilities to look for solutions for their problems and have developed literacy skills that help them to evaluate information by themselves. Some may turn to the medicine shop by default as the easiest place or the only place to get information from, but others have made a conscious judgement that it is the best solution in their circumstances.

6 Conclusion: Importance of Continuing Access to Information

The limited number of interviews conducted so far does not allow us to draw general conclusions about the lasting legacy of PROTIC and its impact on the socio-economic status of the women in their community. This will be the subject of further research. We are planning to conduct a survey of all the PROTIC women in Borokoput and to extend our study to the other two villages in the project. However, our interviews have produced rich data on the ways the PROTIC participants are now accessing and using information. The PROTIC women had become dependent on PROTIC for their agricultural information needs, and, since the end of the project, they have had to find by themselves new sources of timely and reliable information. Although few of the interviewees are still using a smartphone and looking for agricultural information online, through PROTIC they developed their knowledge of agricultural techniques adapted to their village's conditions and they still use those techniques. All of them are still able

to access at least part of the information that had been provided by PROTIC, not because the project planned for the continuity of access to that information, but because they took themselves the initiative to write it down in notebooks. Moreover, they have memorised and internalised the information they used repeatedly so that they can keep using it without referring back to instructions. Thanks to the PROTIC training and the information provided to them, some of the women have been able to continue successful ventures.

However, the positive achievements that we have noticed do not reduce the need for the continuity of access to information to be taken into consideration from the beginning of an ICT4D project like PROTIC. ICT4D projects should not just focus on providing access to technology. The point of ICTs is to provide access to information and continuing access to information should never be taken for granted in projects that involve disadvantaged communities. In a project that provides free mobile phones and support services for a limited time, it cannot be assumed that the participants will be able to afford the cost of buying a smartphone and Internet access after the end of the project or that they will see that as a priority. Even during the course of PROTIC, the participants had encountered problems to access information when their phones broke down and they lost text messages that they wanted to be able to refer back to. Simple measures could have been taken, such as providing printed copies of the SMS during the course of the project. The need for continuing access to up-to-date information is more difficult to address as it requires a continuous effort. A potential solution could have been to plan for the free call centre service to be replaced by a for-a-fee service at the end of the project. Given that most women clearly preferred that service to other ways of accessing information and that this only requires access to a simple phone, it could have been financially sustainable.

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