

Project factsheet information

Project title	Developing mobile based application to support pregnant women in Mountain of Nepal Amakomaya.com	
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Dates covered by this report	01 - 04 - 2013 / 01 -06 -2014	
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Country where project was implemented	Nepal	
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Partner organizations	<ul style="list-style-type: none"> • Kathmandu Model Hospital • Department of Gynaecology and Obstetrics Tribhuvan University Teaching Hospital, Maharajgung • Department of Community Medicine and Public Health, Tribhuvan University, Teaching Hospital, • Nepal Government Department of Public Health, Ministry of Health • Young Innovation Private Limited 	
Total budget approved	\$ 30,000	
Project summary	<p>The amakomaya (Mother's Love) project has designed and deployed an Android application (Amakomaya) to be used by the rural pregnant women of Nepal. The application provides localized information relating to the prenatal, natal and postnatal periods of pregnancy. This information has enabled women to learn about the changes their body will undergo and how the baby will develop. The project wishes to see an increased number of these women making good use of the Health Post's facilities. Female Community Health Volunteers (FCHVs) had been trained to use the application and run a door-to-door service registering those women that are pregnant. We will monitor and record our progress so that it will be possible to replicate this project in other areas both nationally and internationally.</p>	

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Project Summary

Tips: It is recommended to **complete this section once you have finalized the text of the report**. It will be easier to go back through to build the summary based on the highlights of the report the project team just put together.

The Project Summary can be up to **one page long**.

It should include a brief justification; an outline of the project objectives to be achieved; the project real timeline and the main activities conducted.

The abstract of the project written when ISIF Asia initially approved the project and the objectives listed in the Grants Agreement signed by APNIC and your organization should be useful inputs when preparing this section of the report.

Due to Nepal's rugged topography, majority of the population only has access to very basic healthcare facilities and in some cases none at all. Further escalating the problem is inadequate health workers to provide health services. Nepal was found to have 0.17 doctors per 1,000/population and 0.50 nurses per 1,000/population. This represents 0.67 doctors and nurses per 1,000/population, which is significantly less than the WHO recommendation of 2.3 doctors, nurses and midwives per 1,000/population (NHSSP, 2013). Another research done by Development Resource Centre, around 40% of the population do not have access to health information. It creates a particular problem as there are inadequate health workers and the population is not exposed to reliable health information. There is less health services provided to people and the people are unaware of these services. If the health workers cannot reach to rural populace, essential health information must be provided to them in order to make them aware of preventive cure and prevent from loss of time and money.

So, with the sole purpose of increasing the outreach of information related to pregnancy issues to rural pregnant women, the project "Developing mobile based application to support pregnant women in Mountain of Nepal" was designed. The project is based on three basic principles. They are:

- Connect
- Inform
- Monitor

The project has developed an android application which will connect rural pregnant women with nearest Health Posts through FCHVs, then to urban based hospital doctors through health posts for further analysis and suggestions to increase potential for safe motherhood. The pregnant women will create her private account and will then be able to get weekly pregnancy related contents (in video, audio and text formats) in local language they speak, relevant to her stage of pregnancy and be well informed about the changes she and her baby in going through. With this access to information, she will be able to monitor her and baby's health status by herself and by visiting to authorize health institutions eventually increasing Anti Natal Care (ANC) visit in the project area.

The project has been implemented in 7 VDCs of Nepal. Some impacts are visible however; full impact of the project will be realized in coming time. Some valuable outputs and outcomes have been created by the

project where successful policy implication in local government of Makwanpur district is a major milestone achieved by the project. The project should focus on centralizing resources to achieve desired outcome. A blueprint for the projects sustainability has been created through effective collaboration with diverse stakeholders. There is increasing awareness among people on the potentiality of M-Health in Nepal. The health workers and FCHVs are committed to incorporating mobile device in their daily tasks to make people aware through essential information and cut down time and money via paperless data collection. The project has postulated barriers and opportunities of the project which will be utilized in its future endeavour to successfully incorporate mobile device in health system and surmount existing problems in health system of Nepal.

Background and Justification

Tips: The reader should be reminded of the **context** your organization is working, and where the project has been developed in.

This section provides a window to **understand the challenges** faced by the community you are working with.

Include a detailed description about the situation **before the project start**, describing any relevant aspects that make the project relevant in such a particular scenario.

The reader should be provided with a clear description about the problem(s) to be addressed through this project and the motivation from your organization and team members to get involved and offer a solution.

Due to Nepal's rugged topography, majority of the population only has access to very basic healthcare facilities and in some cases none at all. Further escalating the problem is inadequate health workers to provide health services. Nepal was found to have 0.17 doctors per 1,000/population and 0.50 nurses per 1,000/population. This represents 0.67 doctors and nurses per 1,000/population, which is significantly less than the WHO recommendation of 2.3 doctors, nurses and midwives per 1,000/population (NHSSP, 2013). Another research done by Development Resource Centre, around 40% of the population do not have access to health information. It creates a particular problem as there are inadequate health workers and the population is not exposed to reliable health information. There is less health services provided to people and the people are unaware of these services. If the health workers cannot reach to rural populace, essential health information must be provided to them in order to make them aware of preventive cure and prevent from loss of time and money.

Both private institutions and the government have worked hard to improve maternal health and have succeeded in reducing the maternal mortality rate down from 850 per 100,000 live births in 1990 to 170 in 2010 (WHO, 2010). In fact, Nepal's progress in improving maternal health resulted in the nation winning a Millennium Development Goal Award in 2010 (IPAS, 2011). However, maternal mortality remains very high compared to other South-East Asian countries and unequal in rural and urban areas of Nepal.

According to the 2011 census, around 82% of Nepal's population live in rural areas where there is insufficient infrastructure for transportation, communication, health services and education. With commitment to provide health facilities in the door-steps of the people, the government has extended

health services to rural Nepal through Health Posts (HP), Sub Health Posts (SHP) and other grass-root health workers like Female Community Health Volunteers (FCHV). According to DoHS, there were 701 Health Posts, 3,129 Sub Health Posts and 48,550 FCHVs serving rural villages in 2010. As a result the number of skilled attendants at deliveries has increased from 32% in 2009 to 37% in 2011 and the proportion of women receiving antenatal care from a skilled provider has more than doubled in the past 15 years, from 24 percent in 1996 to 58 percent in 2011 (NDHS, 2011).

In Nepal, discussing or sharing ideas about Sexual and Reproductive Health (SRH) is a taboo. Further escalating the issues related to SRH is the shyness and hardship rural women have to overcome to share their SRH concerns with their loved ones. The social customs and traditions are so-shaped in rural Nepal that, it prohibits women to talk and share ideas about SRH. This has been a hurdle in improving maternal health in Nepal. Currently Female Community Health Volunteers (FCHVs) try to combat some of these issues by providing contraceptives and basic information to these women.

Reproductive health is not a big concern for husbands or family members in rural Nepal, except for pregnant women herself. Most of the men do not perform any household chores or take care of the babies by feeding or cleaning them and help lessen the work of their pregnant wife. They are regarded as “womanly man” if they do so. Because of this, rural women are often forced to carry on with their normal routine and their body is put under great stress during the vulnerable natal and postnatal stages. Education and other awareness campaign are likely to improve this situation.

Many efforts are being made to provide adequate information to pregnant women and her family members to increase the incidence of safe motherhood. Many radio and television programs are broadcasted, that are related to SRH leading to increased awareness and education on pregnancy related issues and somewhat increasing willingness to share SRH concerns. According to a study done by Development Resource Centre, highest percentage of the community people have been exposed to the health messages aired from Radio Nepal/FM Radio (60.7%), followed by folk/cultural events (53.5%), slide show and short film (30.7%), posters/pamphlets ((17.8%) and health exhibition ((10.7%). But only 31 percent DHOs occasionally arrange to transmit reproductive health messages through the local FM radio station. It illustrates that, about 40% of the community people are not exposed to health information. Radio program is the best source of information but the rural time frame do not match radio program time due to which, many people miss the information in it. To fulfill this information exposure gap, Nepal needs to come up with a new source of information that will tremendously increase the exposure to health information to all.

So, with the sole purpose of increasing the outreach of information related to pregnancy issues to rural pregnant women, the project “Developing mobile based application to support pregnant women in Mountain of Nepal” was designed in two way interactive communication basis. The project is based on three basic principles. They are:

- Connect
- Inform
- Monitor

The project has developed an android application which is able to connect rural pregnant women with nearest Health Posts through FCHVs, then to urban based hospital doctors through HEALTH POSTS for further analysis and suggestions to increase potential for safe motherhood. The pregnant women can create her own account and will then be able to get weekly pregnancy related contents (in video, audio and text formats) relevant to her stage of pregnancy and be well informed about the changes she and her baby in going through. With this access to information, she will be able to monitor her and baby's health status by herself and by visiting to authorize health institutions eventually increasing Anti Natal Care (ANC) visit in the project area.

The project is an extension of "amakomaya.com"; a web based application that aims to provide pregnancy related contents to rural pregnant women. It was initiated since May, 2012, with the grant of \$4000 provided by Internet Society (ISOC) small community grant under Next Generation E-learning Leadership program received by Rajendra Prasad Poudel. This web application was implemented in 10 V.D.C.s in Nepal. However, due to insufficient access of computer and internet in rural areas, the project couldn't create the expected outcome. So, the project team decided to disseminate video and audio contents in smart phone device by using Micro SD card. This idea has left encouraged result and so the project was motivated to develop Android based application to offer different features and services to pregnant women and other related stakeholders such as FCHV, health workers and City hospital doctors etc. So the running project "Developing mobile based application to support pregnant women in Mountain of Nepal" has been utilizing all the experience and learning from the web based application and exploring more on other possible features to maximum utilization of the benefits of mobile devices, GSM telephone network, Wi-max and broadband wireless network to disseminate urgently informative content and simultaneously monitor all the registered pregnant women by using application.

With rapid modernization covering up the world, the global economy has turned out to be knowledge based. Nepal has also increased the use of modern technology to fit in this global economy. It can be evident from the increasing use of mobile technology. According to Nepal Telecommunication Authority (NTA), mobile and internet penetration in Nepal has increased and reached 71.46 percent and 26.10 percent respectively, based on data collected till the date of 15 July, 2013. If we look at the data over the last one year, the mobile penetration has increased by 11.56% while there has been 5.41 percent increase in internet users in Nepal. The use of multimedia mobiles in rural parts of Nepal has also increased due to foreign employed family members and inflow of remittance. So, the project will use mobile technology as a medium to increase the outreach of modern health information facilities.

Though the internet connectivity is increasing in rural Nepal, the bandwidth is very low. It is insufficient to download the application with all the contents in it as the application size is large. But, the pregnancy related contents in amakomaya.com is distributed in the earlier project. The application has already been developed and uploaded in android play store. From there, anyone can download the application and the contents from the link: https://play.google.com/store/apps/details?id=com.amakomaya_version2

The project has focused mainly on developing a localized mobile application with a suitable capacity level for rural women having low level of literacy. The application has brought awareness regarding prenatal, natal, and postnatal, care and practices by making motherhood relevant content available to rural population. The project has mobilized FCHVs for effective deployment of the application. They are

responsible for taking the information to rural pregnant women and taking their feedbacks to HEALTH POSTS. Finally, the project has encouraged participation of community women through motivational contents, health post workers by easing their work burden, and doctors by bridging the current gap in communication between rural women and the city hospital.

Project objectives

Tips: Please include here the **original objectives** as listed on the Grant Agreement.

If any objectives were modified, added or removed during the reported period this should be explained/justified.

Please write the project objectives here...

General objective

- 1) To bring about positive behavioral change in rural pregnant women and their families regarding pregnancy related issues by providing them prenatal, natal and post-natal information through local health authorities (especially FCHVs) by the help of mobile technology.

Specific objectives

- 1) Increase knowledge levels of rural pregnant women regarding prenatal, natal and postnatal periods.
- 2) To empower FCHV to use localized mobile application in admin part.
- 3) To encourage male members in the family for active participation during pre-pregnancy, pregnancy and post-pregnancy period.
- 4) Increase usage of all facilities provided by the Health Post (i.e. vaccinations, mineral supplements, birthing centers, etc.) provided by Nepal government.

Users and uses

Tips: Discuss with your project team who would be the future users and how they would use the findings throughout the project lifecycle. The uses identified should relate to the theory of change that you have discussed with your project team. The discussion about theory of change, users and uses, will be a very important input to your communication strategy: depending on who the user is and of what use will be the findings, a communication strategy can be developed. For example, if the users of the findings are policy makers and the use is to influence a change in the regulatory framework, which communication approach will work the best?

Who will be the user of these findings?

What are the more relevant things the project team wants to learn about or evaluate through the lifecycle of this project?

The project is aimed at enhancing exposure to health information for Behaviour Change Communication (BCC) in rural pregnant women and their family members. However, there are three primary users of the application. They are:

1. Rural pregnant women
2. Family Members
3. Grass-root health workers (FCHVs and Health Posts)

The main target of the project are the pregnant women as it focuses on raising awareness on Maternal and New born health. However, the contents are not only aimed at pregnant women but also to their family members to trigger long term behavioural change.

One of the main goals of FCHVs is to impart knowledge and skills to empower women. Focusing on this goal, the FCHVs will make use of the application during their door-to-door service to impart knowledge through the mobile device to rural pregnant women. They will be the main agents to deploy the application and increase its outreach to all pregnant women in their respective area. All the data that have been collected in the application needs to be transferred to the amakomaya.com server. There is a need of filtering the data before submitting it. So, the task of filtering the data before sending is allocated to health post in-charge in particular.

The secondary users of the application are:

1. City Hospital Doctors
2. Yagiten Pvt. Ltd.
3. Government of Nepal (GoN)
4. Software developers
5. Policy makers

The City Hospital Doctors had created the contents for the application. Yagiten Pvt. Ltd has developed the amakomaya android application and deployed it in 4 VDCs of Makwanpur district and in 1 VDC of Kathmandu district, 1 VDC of Rasuwa district and 1 VDC of Chitwan district. The company is still working on the application and making regular modifications as required. The GoN has monitored the contents that are being distributed in the villages. They have monitored the progress gained through the project in order to observe its effectiveness and make relevant provision for the project.

The software developers are responsible for the development and modification of the application as per the need of rural women.

The project will bring forth problems of rural pregnant women to urban based hospital doctors. These doctors can make good use of the unique cases from rural areas to analyse and produce a treatment for those cases. Researchers can also benefit from the project to study the health status of rural pregnant women and the effectiveness of using mobile devices in the health system of Nepal. Furthermore, government authorities can monitor and investigate the present situation of pregnant women in the project site through data transferred to amakomaya web server.

The project will be a valuable asset for policy makers. With increasing advancement in science and technology, there is increasing burden on policy makers to formulate relevant ICT policy in the country. These policies should be based on research and studies that postulates real barriers, ways to circumvent it and potential benefits it carries. So, the project can be of utmost importance for the policy makers to formulating M-Health policies in the country.

The team members of the project can have good experience and learn good lessons about the hurdles that can come during the project life cycle and strategies to tackle these hurdles. Specially, software developers will be familiar with needs of rural populace and developing application appropriate for them will be a challenge. They will also be able to produce strategies for effective implementation and monitoring of the project.

The researcher for the project has been creating a framework for relevant research work. Impact of ICT incorporation in health system cannot be seen immediately. It will take some time; almost about a year to study the impact effectively. So, a good framework for the project will be of utmost importance.

Indicators

Tips: Indicators help to *measure project's progress*.

Indicators help the objectives that were set by the project team to be affordable, tangible, and measurable.

They help to verify the success and rewrite the course in case we are not achieving it.

An indicator could be quantitative (percentage, amount) or qualitative (perception, opinion).

The ISIF Asia secretariat suggests the SMART approach to indicators:

- S** **Specific**
- M** **Measurable**
- A** **Achievable (acceptable, applicable, appropriate, attainable or agreed upon)**
- R** **Relevant (reliable, realistic)**
- T** **Time-bound**

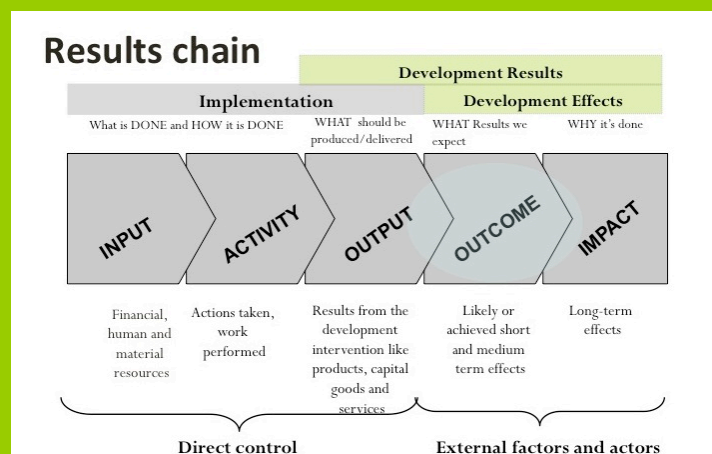
Please use the table below to share your project indicators...

Baseline	Indicators	Progress	Assessment	Course of action
28/08/2013 Amakomaya Web Application: 114 registered users Amakomaya Mobile Application: 0 registered users (not implemented)	Increase in registration by pregnant women. All together, 484 pregnant women have been registered.	Health workers and FCHVs in all the health post have been trained to use the application. The data saved in the application are sent to the server. But some problems occurred due to which data were deleted. So now, all the pregnant women will be needing internet connection to create new contact. The data will be immediately sent to the server and data will be collected.	Internet connection is a big hurdle for the project. The internet bandwidth is very week due to which it takes long time to send the data to the server. The health posts have been using GSM internet via sim card to create new account and data transfer.	Initially all the data from new account used to be stored in mobile. Later with internet connection, the data had to be transferred. But some technical problems occurred due to which all the data were deleted. So the application now needs internet connection for creating new account. The data of the new account will now be sent to the server immediately.
In previous year 2012/13 Total 1 st ANC visit: Hadikhola: 167 Tistung: 71 Bjrbarahi: 99	In current year 2013/14 Total 1 st ANC visit: Hadikhola: 108 Tistung: 93 Bajrabarahi: 115	Among all the health posts, the aforementioned 3 health post had received the mobile devices earlier than others. So the information the health post have been illustrated. The health post in-charge in these health post report that ANC had increased due to the project. However, not all the increase can be attributed to the project alone. But the mobile devices and contents has supported in increasing ANC visit in the health post.	The contents in the application are unique not only to pregnant women but also to health workers. So, intense sharing of information took place initially. Due to which, some pregnant women and their family members visited the health post just to see the contents eventually increasing ANC visits in the health post.	A robust research design is being created to isolate the impact of the project alone on ANC visit. The health post and FCHVs will then be directed accordingly to collect data for analysis.
In previous year 2012/13 Total 4 th ANC visit: Hadikhola: 71 Tistung: 32 Bjrbarahi: 38	In current year 2013/14 Total 4 th ANC visit: Hadikhola: 54 Tistung: 59 Bajrabarahi: 57	Among all the health posts, the aforementioned 4 health post (bajrabarahi, hadikhola, Tistung and Ramkot) had received the mobile devices earlier than others. So the information the health post have been illustrated. The health post in-charge in these health post report that ANC had increased due to the project. However, not all the increase can be attributed to the project alone. But the mobile devices and contents has supported in increasing ANC visit in the health post.	The contents in the application are unique not only to pregnant women but also to health workers. So, intense sharing of information took place initially. Due to which, some pregnant women and their family members visited the health post just to see the contents eventually increasing ANC visits in the health post.	A robust research design is being created to isolate the impact of the project alone on ANC visit. The health post and FCHVs will then be directed accordingly to collect data for analysis.
In previous year 2012/13 Institutional delivery: Tistung: 9 Bajrabarahi: 58 Hadikhola: 32	In previous year 2013/14 Institutional delivery: Tistung: 40 Bajrabarahi: 59 Hadikhola: 38	There is significant increase in institutional delivery. However not all the increase can be attributed to the project.	The data is only up to April. There are additional data to be entered for 2 months as the time is still remaining for new fiscal year to begin. The increase in institutional delivery cannot be attributed to the project alone because there are other initiatives taking place to increase institutional delivery.	A robust research design is being created to isolate the impact of the project alone on institutional delivery. The health post and FCHVs will then be directed accordingly to collect data for analysis.
Number of programs where amakomaya contents were aired or displayed: 0	Number of programs where amakomaya contents were aired or displayed: Bajrabarahi: 200 Tistung: 20 Hadikhola: 4	The health post in-charge are encouraged to display the contents in any kind of program or gathering.	There is Pregnant Women Group (PWG) in all the VDCs. They gather on specific time in a month. So the health post in-charge are encouraged to display the contents to all pregnant women gathered in the program.	All the health post in-charge are encouraged to display the contents as much as they can so that more and more pregnant women and their families would be exposed to the information.

Project implementation: understanding the chain that leads to results

Tips: This is the most important section of the report. Here, the reader will **understand the processes and operational issues** of your project and how they contribute to the achievement of the objectives and the theory of change behind the project implementation.

Is possible that the project team's understanding of the development problems to be addressed with this project will have evolved or **changed** from those described when the project was originally submitted and approved. If that is the case, please share what motivated the change and what course of action has the project team identified.



Results chain diagram provided by In Develop

Narrative - project implementation

Please write a narrative description about the project implementation, starting from the problem statement you develop on your approved proposal. Please use this section of the report to provide context to the work conducted. For example:

1. Describe any **partnerships** with other organizations, researchers and community leaders that have been developed during the project cycle and the usefulness of these in achieving the project's objectives.
2. Describe the **involvement** of project beneficiaries, during all phases of project implementation.
3. Describe any **gender, ethnic and generation gap** issues that have impacted positively or negatively your project implementation.
4. Please take the time to reflect about activities that you struggle to implement during the period reported, along with processes and methods originally planned that might need **adjustment** to achieve your project objectives.

Please use the table below to report about project implementation...

Input	Project activities	Outputs	Outcomes	Timeline	Status	Assessment
Hired designers	1- Explored possible Design of the application from various sources. 2- Discussed with all the team members about the User Interface. 3- Graphics of User Interface has been designed in multiple colours and layout and demonstrate to all the team members.	1- The front end template of android application have designed	The design of the application is complete. It has been approved from the team members and community end users.	17 th March, 2013 – 30 th July, 2013	Completed	A mock-up design was first designed. After analysing the design, and some modifications, final design was approved. Mock-up was designed using Balsamiq Mock-up tool. Further final design was prepared in Adobe Fireworks. Rigorous discussions and meeting were conducted for the design of the application.
Hired Java trainer.	30 hours of training on Java programming provided to software developers.	Team Members of Amakomaya.com, Volunteers of E-Network Research and Development (ENRD) and Intern students of university were participated as trainees.	The team members of amakomaya.com now empowered to develop Java Application. Now these team members are capable to learn developing Android Application. Development of mobile application using java programming Human capital in form of trained Java Developers.	3 rd April, 2013 – 29 th July, 2013	Completed	The training took place in Yagiten office building. Classes are taken before office hour and the trainees continued their work after the class. The software developers are now trained in latest Java programming that will enable them to make appropriate application for the project.
Hired Android trainer	Training provided to application developers.	Team Members of Amakomaya.com, Volunteers of E-Network Research and Development (ENRD) and Intern students of university were participated as trainees.	The trainees are now actively involved in developing Android application.	9 th April, 2013 – 30 th July, 2013	Completed	The android trainers were hired from Young Innovation Pvt. Ltd. And The training took place in the evening. The training was on developing android application to the trainees who has already completed their Java Programming training.
Gathered FCHVs and hospital doctors for meeting.	Meeting with FCHVs and doctors	Feedbacks were collected and sharing of project plan was executed.	Feedbacks from health workers were collected on amakomaya web application. Sharing of the plan and plan for future workshop for the project. Feedbacks were collected on – What sorts of features we have to include in the android application to support for FCHV and doctors. Also feedbacks collected on what sort of Smart Phone and tablets we have to distributes to the FCHV	24 th April, 2013	Completed	Doctors from Kathmandu Model hospital and FCHVs were gathered. The program went on for half day. Their feedbacks and suggestions were collected from the existing web application for creation of better contents for android application. The plan of the project was shared to develop effective implementation strategies in project area.
Visit to Beni	Discussion workshop with district level doctors FCHV from 3 villages.	Informed district level doctors about the features of application. Discussed and collected feedback on implementation model of program in selected villages.	The district level doctors understand about the importance of mobile device and application running on it. Doctors are encouraged to work with Amakomaya.com team members in coming days.	8 th May, 2013	Completed	The doctors in Beni were summoned. A discussion workshop was conducted to inform them about the project. Their valuable suggestions were also gathered.
Summoned stakeholder s for workshop	Small workshop.	A blue-print for content and application design, site selection.	A blue-print for the content and application was created through intense discussion. A criterion for site selection was designed to implement the project.	15 th May, 2013	Completed	Stakeholders (Health workers, social mobilize, application developers and doctors) were summoned for the workshop. Intense discussion took place to create the design for content and application.
Field visit to Myagdi	Questionnaire survey	Collection of baseline data and feedbacks	Impact of the contents on amakomaya web application was on served. Feedbacks from the end	21 st May, 2013 – 25 th May, 2013	Completed	The end user pregnant women were visited. Questionnaire survey was done and feedbacks from

			users were collected.			them were collected on the contents in amakomaya web application
Field visit to Nuwakot	Questionnaire survey	Collection of baseline data and feedbacks	Impact of the contents on amakomaya web application was observed. Feedbacks from the end users were collected.	26 th May, 2013 – 30 th May, 2013	Completed	The end user pregnant women were visited. Questionnaire survey was done and feedbacks from them were collected on the contents in amakomaya web application
Hired an intern.	Collect baseline data so progress of project can be monitored, plan and monitor progress of project using outcome mapping method.	Baseline data collected, platform for monitoring project progress laid out.	Project progress can be monitored.	26 th July, 2013 – 14 th September, 2013	Completed	Matthew Thomas from England was hired as an intern. He was hired to strengthen the writing capacity and skills to create better documents for the project. His inputs for conceptual framework were also gained in the process.
Cooperating with Trivhuvan University Teaching hospital doctors	Meeting with Trivhuvan University Teaching hospital Department of Gynaecology and obstetrics, Department of Community Medicine and Public Health. Discussed foreseen problems and their possible solution.	Explored the way of approving educational content related with health from government bodies. Discussed on establishing centre for responding pregnant women's queries by the help of FCHV of rural health workers.	Gained commitment from the doctors to cooperate and work with the project for content development, establishment of support centre for pregnant women as well as site selection and coordination with the local communities.	1 st August, 2013. 13 th January, 2014. The date will be changed up to Jan, 2014	Completed	Expert medical content can now be incorporated into the application. Plans for project were altered so as to take a more realistic approach to linking rural women with medical facilities.
Chartered software developers from Young Innovation Pvt. Ltd. And Mobile Nepal.	Plan and develop user interface alongside Yagiten Pvt. Ltd. Weekly meeting between two companies.	User interface and design of application developed.	Application is easy to use and provides information, reminders and emergency contact details in best possible way.	9 th July, 2013. 19 th July, 2013. 6 th August, 2013.	On going	Working with designers has enabled us to ensure that our application provides information that is accessible to our end user. Better ideas from both the companies are collaborated to develop a user friendly application for rural population. Communication between the two companies could be somewhat improved.
Authorizing content from The Ministry Of Health	Liaising with The Ministry of Health to authorize content.	Government Authorized Content	Government authorized content will mean end users have more trust for the information provided. They will hence be more inclined to engage with the material and increase their knowledge levels	22 nd July, 2013	On going	This is a necessary input due to Nepal's laws and regulations. It lengthens the process of collecting content but means our content will be of a high, government approved standard.
Field visit to Dadagaun and Thulogaun. (Project implementation area)	Questionnaire survey, Focal Group Discussion (FGD) and data collection for baseline.	Obtained qualitative and quantitative data, of one project area for baseline based on which, the project progress will be measured	The local leaders are now aware of the project plan. They have also started to plan for strategies for the implementation of the project in their areas.	August 20 th , 2013 – August 25 th 2013	Completed	Two team members have visited the villages and met the local leader of the area. Pregnant women were investigated to analyse the impact of videos distributed earlier from amakomaya.com and their feedbacks for better content development. Focal Group Discussion was also conducted to gain qualitative data from health workers. Furthermore, plan of the project was shared to create better implementation strategy.

Hired Dr. Rajendra Wagle	Site selection and creation of coordination with teaching hospital	Creation of strategies for project implementation and coordination with GoN.	The project gained strong human capital for coordination with teaching hospital, GoN and local health workers.	3 rd September, 2013	Completed	Discussion with Dean of Teaching hospital was organized to get the approval for coordination from Dr. Wagle. Contact with him was established later on. He will be helping the project team to coordinate with the Government of Nepal. He will also be helping to select project site and establish coordination with local leaders.
Field visit to Lamjung and Tanahu	Observed the rural health systems and problems in them.	Understanding of rural settings to plan effective strategies for project implementation. And collection of baseline data.	Rural health workers were informed about the application. Some students from Tribhuvan University were also informed about the application.	9 th Sept, 2013 – 14 th Sept, 2013.	Completed	Researcher from Yagiten was sent with Professors from Institute of Medicine (IOM) Tribhuvan University to examine the rural health conditions. Ideas from health workers and students were gained who had been studying health aspects of 11 V.D.C.s of Tanahu and Lamjung.
Field visit to Ramkot PHC	Informed the health workers about project implementation date and requested them to prepare for it. Also gathered additional feedbacks from the community health workers.	Commitment from health workers and GoN to cooperate for effective project implementation.	Local health workers are now aware of the project. They have started planning about the project implementation.	25 th September, 2013	Completed	The visit was conducted along with HOD of community health in TU and HOD of administration in department of health service under Ministry of Health. Local health workers were met and informed about the project. Keen interest and commitment were gained from the health workers.
Field visit to Ramkot PHC	Amakomaya android application was launched for the first time in Ramkot PHC of Kathmandu district.	The amakomaya android application.	The health workers in Ramkot PHC now have 2 android mobile phones with the amakomaya application installed in it. It is now mobilized by the health workers to inform pregnant women about pregnancy related issues.	3 rd October, 2013	Completed	The program was implemented in the presence of Director of Administrative division in DHO, Mr. Shree Khishna Bhatta, HOD of Department of Community Medicine in Teaching Hospital, Dr. Rajendra Wagle, Dr. Neelam Pradhan, local leaders and local residents. Media partner, NEFEJ team was also present there for media coverage. The media coverage can be seen in the link below. (http://amakomaya.com/news.php?news=view-new&news_id=22)
Field visit to Makwanpur	Meeting attained with government authorities (District Health Officer (DHO) and District Development Committee (DDC)) and informed local health workers in Hadikhola and Tistung V.D.C. about the project along with their feedback collection.	Gained approval for implementation of the project in Makwanpur District.	The government authorities were informed about the activities to be carried out in their districts. Their commitment for the extension of the project and support if the project succeeds was also gained.	27 th Oct, 2013 – 29 th Oct, 2013	Completed	The visit was supported by Dr. Sudershan Poudel from Patan Hospital. All the health authorities of the districts were summoned to inform them about the project idea. Their feedbacks were collected. The project implementation sites (villages) were also selected with their consultation.

Field visit to Hadikhola	<ul style="list-style-type: none"> • Launch of amakomaya android application in Hadikhola VDC in Makwanpur district. • Meeting with LDO and DHO for their support and cooperation. Visit to Bankariya settlement area for observation. 	Launch of the application in Makwanpur district.	The health workers in Hadikhola Health Post now have 2 android device and the application to disseminate information to pregnant women in their area.	19 th Dec 2013- 21 st Dec 2013	Completed	The program was held amidst Dr. Sudershan Poudel from Patan Hospital, local leaders, VDC chief, pregnant women, health workers and local people. The application was demonstrated to many pregnant women. A video documentary of the program was also covered by media partner NEFEJ team during the field visit.
Field to Tistung and Bajrabarahi VDC	Launch of amakomaya application in Tistung and Bajrabarahi VDC in Makwanpur districts.	Handing over of mobile devices and application to health post incharge and provided training to effectively use it.	The health workers in Tistung and Bajrabarahi now have mobile devices to provide information to pregnant women in their villages.	10 th Jan 2014 – 12 th Jan 2014	Completed	The programs were organized in the presence to VDC chief, representative from DHO, FCHVs, Health workers and local people. The health workers were trained to use the application. Their feedbacks to further modify the application were collected for future tasks.
Hired trainer for android training	<ul style="list-style-type: none"> • Advertisement published in the official web site of; amakomaya.com and other social networking site like Facebook. • Conducted interview for the trainees who were offered scholarship for the training program by the project team. • Implementation of training program on android application development keeping amakomaya android application as a reference. 	• 14 participants were trained on the android application development.	<ul style="list-style-type: none"> • The participants in the training program have acquired required knowledge to develop other applications. • 2 trainees were hired by the amakomaya team for the continued support to the project in days to come. 	7 th March 2014 – 15 th March 2014	Completed	The training was held in Young Innovation Pvt. Ltd. All together 14 participants were present out of which 6 participants were awarded scholarship for the training. Scholarship was provided to the participants on the basis of poor economic background. However, only 1 female participant was present though the project team wanted more female participants.
Hired android programmers for the project	• Interview of the programmers and hired the best programmer for the project	• Involvement of new programmer for further development of the application.	• New programmers as think tank for the project.	25 th April, 2014	Completed	New programmers were hired for the project from the training program organized by the project. The new programmers have been trained by the project and will now be contributing for further development of the application.

Monitoring visit to Makwanpur (Tistung, Bajrabarahi and Hadikhola health post)	<ul style="list-style-type: none"> • Visit to Tistung, Bajrabarahi and Hadikhola Health Post. • Meeting with all the health post in-charge, FCHVs and pregnant women. • Meeting with DHO, LDO and other relevant governmental authorities. • Collection of data for analysis. • Distribution of mobile device to Sisneri Health Post 	<ul style="list-style-type: none"> • Exposure the problems or barriers in project implementation. • Informed government authorities of the project progress. • Collection of data. 	<ul style="list-style-type: none"> • The team members are now aware of the barriers presented in implementation phase and the progress made so far. • The government authorities are now aware of the project potential and the potential of M-Health in Nepal. 	20 th May – 23 rd May, 2014	Completed	The team members physically travelled to the health posts in Makwanpur district. The team members interacted with health post incharge, FCHVs and pregnant women. The team members found that: <ul style="list-style-type: none"> • The video contents are generating more demand for video contents in health workers, pregnant women and her family members. • The number of mobile devices provided to health posts is not enough for impactful project intervention. So, the resources have to be centralized to fewer health posts than originally planned. • All the relevant stakeholders are now aware of the potential in M-Health and willing to support the project in future.
Workshop in Makwanpur .	<ul style="list-style-type: none"> • Meeting with government authorities and health workers to inform about the program and to briefly introduce the program. • Invited LDO and DHO as chief guests and summoned political leaders, media personnel, health workers, FCHVs and pregnant women and other relevant stakeholders for the program. • Distribution of mobile devices to health posts including Sisneri health post. 	<ul style="list-style-type: none"> • Forecast of work performed so far by the project. • Forecast of impact of the project in community. • Successful Policy advocacy for M-Health concept in Nepal. 	<ul style="list-style-type: none"> • The Local Development Officer (LDO) officially announced to have created a provision for amakomaya project in the upcoming district level budget formulation. 	23 rd May, 2014	Completed	All the relevant stakeholders from media personnel to government authorities were invited in the program. The health post in-charge presented their experience so far with the project and the impact it has had in the community. The team members of the project presented their own experience. Finally after short discussion period, the LDO announced about the provision created for amakomaya project in the upcoming government plan.

Project outputs, communication and dissemination activities

Tips: Take into account that the reader of your report has not been involved in project implementation, so readers do not have any further knowledge besides the information you are providing here.

This section of the report will allow you to document the communication and dissemination efforts that the project team has conducted, which might be part of a specific communication strategy design as part of the project, or in place for the organization as a whole. When possible, please provide information about strategies in place and the rationale behind them.

Lessons can be learned from many aspects of project implementation, covering a wide variety of aspects such as technical, social, cultural and economical. Taking the rationale behind the project and its objectives can serve as a framework to draw your conclusions. Lessons can be identified by project partners, beneficiaries and general staff from the organization. A project diary and other activity records can serve as a tool to reflect during project team meetings and immediately after project activities are conducted.

Outputs are immediate, visible, concrete developmental change that is the tangible consequence of project activities, under direct control of the project team.

Example of possible outputs to report are:

- New products and Services (software, online platforms, applications);
- Information sharing and dissemination (publications, conferences, multimedia, social media);
- Knowledge creation (new knowledge embodied in forms other than publications or reports, such as new technologies, new methodologies, new curricula, new policies);
- Training (short-term training, internships or fellowships, training seminars and workshops) and
- Research Capacity (research skills; research management capacity and capacity to link research to utilization of research results).

Please use the table below to report about project dissemination...

Project outputs	Status	Assessment	Dissemination efforts
Output No. 1 (use the same names as per the listed outputs in the table above, see Project implementation)	Please select the option that better describes the status into the development of this output: - Work in progress - Completed. Please indicate date. - Not started. Please clarify, why? - Not completed. Please clarify, why?	Descriptions should be clear and ideally contain operational terms where needed. Please describe the quality dimensions.	Please specify what dissemination efforts were made, with special attention to those intending to reach target groups by gender, age, ethnic and socio-economic profiles to impact marginalized and disadvantaged groups.
Final design of the application	Completed (May, 15 th 2013)	After intensive discussion, mock-up design was prepared. It was further modified to create appropriate design. The design is clear and easy to use.	Used facebook to disseminate the result.
Development of mobile application using java programming Human capital in form of trained Java Developers.	Completed (3 rd April, 2013 – 29 th July, 2013)	The Amakomaya team have received training in the field of java programming. The entire application is being designed using this platform. The training has expanded the human capital of our software developers and will allow us to edit the design of the application if needs be.	
Human capital as trained Android developers	Completed (9 th April, 2013 – 30 th July, 2013)	The team now has trained android application developer. They will now be able to make required changes in the application to make it appropriate.	
Baseline data collected, platform for monitoring project progress laid out.	Completed (3 rd October, 2013)	Questionnaires, focus group discussions and data collected from 4 villages. Ideally this number would be larger but present funding has not been sufficient to expand our research	Meetings regarding the application were carried out with all stakeholders in village. Attendants were informed about the application and feedback gathered.
Approved educational content System for managing pregnant women's queries was defined	First phase content approval is completed in Sept, 2013. Now new content is also proposed for approval. This process will be continue for new content.	Having content approved by such a highly established organization will improve people's trust in the application. The systems defined have not yet been tested and may have to be altered after the implementation phase.	The content will be disseminated via the application within the villages implemented
Creation of strategies for project implementation and coordination with Government of Nepal (GoN).	Completed (3 rd September, 2013)	The doctors from Teaching hospital will be co-ordinating to develop contents and authorize contents from GoN. But all the doctors will not be directly involved to promote the application.	The local leaders and health workers are informed about the co-ordination with teaching hospital.
The launch of amakomaya android application and 2 mobile set handed over to PHC in Ramkot VDC for maternal and child health information dissemination.	Completed (3 rd October, 2013)	The program was held midst GoN representative, doctors, health workers and local leaders and local residents. The health workers have been trained to effectively make use of it.	The program was covered by Nepal Forum of Environmental Journalists (NEFEJ); the media partner for the project. The news cover was aired on Aankhijhyal program, broadcasting by national television which is one of the most famous programs in Nepal, on its 840 th episode. The youtube link for the coverage is: https://www.youtube.com/watch?v=l-80ULhBvAo .
Gained approval for implementation of the project from government authorities in Makwanpur District.	Completed (27 th Oct, 2013 – 29 th Oct, 2013)	A meeting with DHO and DDC was held where most of the health workers in the Makwanpur district were present. The authorities permitted to implement the project and committed to take ownership if the project succeeds in its objectives.	A video for the news cover had been recorded by NEFEJ. The video of DHO and DDC had been covered on another news cover of amakomaya.com. From broadcasting by national television
Launch of the application in Makwanpur district, Hadikhola VDC.	Completed (19 th Dec 2013- 21 st Dec 2013)	The program took place midst health workers, local residents and students. The health workers were trained to use the application effectively. The health workers were quick to learn. Even many pregnant women were present who were demonstrated the application.	The program has been covered by NEFEJ on its program Aakhijhyal, episode number 854. broadcasting by national television The link for the program is: https://www.youtube.com/watch?v=dzj-cDSdL5g
Handing over of mobile devices and launch of the application in Tistung and Bajrbarahi health post and provided training to effectively use it.	Completed (10 th Jan 2014 – 12 th Jan 2014)	The program took place midst health workers, local residents and students. The health workers were trained to use the application effectively. The health workers were quick to learn. Even many pregnant women were	The news has been covered on amakomaya.com web application.

		present who were demonstrated the application.	
14 participants were trained on the android application development.	Completed (7 th March 2014 – 15 th March 2014)	The training was conducted in order to enhance android application development skill on novice programmers. 2 trainees have been hired to technically support amakomaya android application	The news have been covered on amakomaya.com
• Involvement of new programmer for further development of the application.	Completed (25 th April, 2014)	The programmers have been trained by the project under its project activities. The programmers were then selected from the participants. The programmers have been a valuable asset for the project as they have brought new ideas for the project.	All the stakeholders are informed by the project on meeting. The programmers have also been to a field visit for exposure to rural settings and need assessment of the target population.
• Exposure the problems or barriers in project implementation. • Informed government authorities of the project progress. • Collection of data.	Completed (20 th May – 23 rd May, 2014)	Interaction with health workers, FCHVs, pregnant women and government authorities have provide an insight to health existing barriers in project implementation. The feedbacks are processed and appropriate steps for future endeavour will be taken to address the need of target population.	A short news article will be written and published in the web site and other publications. A short video is under editing for the dissemination.
• Forecast of work performed so far by the project. • Forecast of impact of the project in community. • Successful Policy advocacy for M-Health concept in Nepal.	Completed (23 rd May, 2014)	It has been the biggest success of the project. The LDO formally announced to have created a provision in district level governmental plan for amakomaya project.	News article will be published in news papers and the website of the project. Short video will be created for dissemination to public.

Project outcomes

Tips: This section should be completed **ONLY** for the final report.

ISIF Asia expects you to report about the **outcomes** of the project as defined in the table below, based on the project implementation section of this report. Project team is encouraged to discuss the questions provided below to guide the reflection:

Can you identify and describe the relationships between the activities implemented and the social, economical, cultural and/or political benefits of your project implementation?

Outcomes can be defined as:

- Medium-term effects
- Effect of a series of achieved outputs
- Should capture the changes for the beneficiaries
- Take place during the life of project/strategy
- Influence but not direct control

The project has been able to generate some of the unique outcomes in Nepal. For the very first time in Nepal, an application has been developed that provides essential information to pregnant women in rural parts of the country. The contents in application are informative as well as entertaining not only to pregnant women but also family members and health workers. Many

health workers claim that they had never seen such video and audio contents before. So, exposure to essential information has increased. According to health post in-charge, ANC visit also increased initially as pregnant women were eager to watch and hear the content. So, they visited the health post which increased ANC visit of the pregnant women.

The application has been disseminated and tested in 7 VDCs of the country. In order to increase the outreach of information, FCHVs have been mobilized. This has technically empowered FCHVs by training them to use the mobile devices and application. Many of the FCHVs express their gratitude towards the project because they had never thought of using mobile devices to ease their task of providing health information to people. In fact, it is the very first initiative in the field of mobile health that enables FCHVs to use smart phone for their task in Nepal.

Case Study: FCHVs express their gratitude to the Amakomaya project.

Bishnu Maya from Hadhikhola-7 is one of the most energetic and young FCHV from the VDC. She was present during the implementation phase and mobile distribution program. She had been trained to use the application and directed on how she can make best use of the mobile device. During the monitoring visit to Hadikhola on 21st May, 2014 she was present in the health post and was interviewed by project members.

On the interview she said “Amakomaya is an effective initiative for pregnant women especially for pregnant women in our village because they do not have access to good information. They are informed by health workers but a video and audio content in the application has a triggering effect. The pregnant women feel like they are watching their own child in the video and connect to the messages delivered. They remember it for a long time. I want to use the application and provide it to all the pregnant women in my village but the number of mobile device is not enough. So I cannot carry it wherever I go. But I always remind pregnant women in my area to visit the health post to watch the contents. Pregnant women who have watched the contents are more open to us now. They discuss about their pregnancy issue more openly. The sharing of idea has increased a lot than before. Thanks to Amakomaya project but still more can be done and achieved.” Continuing with her assertive opinion, she suggested that “The video contents and the application must be taken to Pregnant Women Group (PWG) where all the pregnant women in the area gather on certain fixed time of a month. All the pregnant women can watch have access through it.”

Sarita Gurung from Bajrabarahi-9 is one of the most active FCHV from the village. Among all the FCHVs, her home is the furthest from Bajrabarahi health post. But she was the first to reach the health post when Amakomaya project was launched. She was the first one to learn to use the application in the VDC. She was met on 21st May, 2014, during the monitoring visit to Bajrabarahi. She was then invited to DDC for the workshop to express her view for the project.

On 23rd May, 2014, the very day when workshop was organized in DDC in the presence of Local Development Officer (LDO) she expressed her experience. She said “A lot of programs have been

launched in our VDC and we have participated in it. But Amakomaya project stands out because it is the first project that actually made us learn how to use a mobile device more effectively. We had never thought a mobile device could be used to ease our assigned tasks. Since the launch of the project, all the FCHVs are interested and excited to use the application and show the essential information to pregnant women in our VDC. It has been a basis for trust among pregnant women and us. But we had only two mobile devices. It was very difficult to hand over devices to another FCHV as we had to travel a lot for that. We lost our time and effort in doing so. So, all the FCHVs and health workers joined hands, agreed and contributed to purchase new mobile devices so that, all the FCHVs would have mobile device and application. And now, we have mobile device and the Amakomaya application. Thanks to Amakomaya because we wouldn't have realised the potential in these tiny mobile device"

Such kind statements from the FCHVs have been acquired for the project. They have time and again expressed their gratitude towards the project. They have also provided the Amakomaya team with valuable suggestion that will be incorporated in the project for its future endeavour.

The application is developed by Yagiten Pvt. Ltd. The company has utilized young university graduate programmers to develop the application. They have been trained in Java and android mobile programming. In the current trend where young programmers are urban based, the project has been able to utilize their knowledge for welfare of rural populace. So, the project has been able to generate young programmers for its future endeavour and inspire them to utilize their knowledge for rural development.

Only 2 mobile devices were provided to each health posts. It is insufficient for health workers to increase the outreach of application and information to all the pregnant women in village. So, Bajrabarahi health post in Makwanpur has bought 9 mobile devices to each of the FCHVs utilizing FCHV fund and some contribution from FCHVs themselves. It implies that, local health workers and FCHVs have noticed the potential in mobile devices to ease their work and are ready to take the ownership of such projects by themselves. So, the project has been able to influence grass-root level health investment towards technically supporting health system.

Case Study: Amakomaya initiative encourages local FCHVs investment towards mobile device.

Though a lot of monitoring of the project site had been performed on telephone communication, the amakomaya team went on a comprehensive monitoring visit to 3 VDCs of Makwanpur. One of the most awaited health posts to be visited was Bajrabarahi health post. It is one of the most committed VDC that is willing to adapt Amakomaya project on a sustained basis. The team members reached Bajrabarahi health post on 20th May, 2014. The health post in-charge, Mr. Megh Raj Balami was present in the village to receive and facilitate the team members. The team members met Mr. Balami and carried out short discussion about the project.

On an interview by team members, Mr. Balami said “The Amakomaya project has a very relevant concept to the context of our VDC. It provides vital information to pregnant women as well as family members, FCHVs and health workers. We personally had never seen such contents. We have been displaying the contents in Pregnant Women’s Group (PWG) gathering. We categorized them under Income Group (IG) to increase their attendance but it did not work well. But, in a situation where very few pregnant women joined the gathering, the unique and informative contents have actually increased their attendance and presence in the gathering. It has also facilitated open sharing of pregnancy related issues among pregnant women and health workers. It has brought their own family members and FCHVs closer to them and helped make them responsible during their pregnancy period. Furthermore, FCHVs are more interested in utilizing the mobile devices in their work. They are fascinated by the contents and paperless data collection which eases their assigned duty. So, with the consent of VDC chief, FCHVs and other health workers, we have bought 9 mobile devices for each FCHV. The devices were bought by investing money collected in FCHVs fund. We had provided loans to villagers from the fund. There was some money which we earned through interest generated from the loan. We bought mobile devices that cost Rs. 9,000 each. However, the fund was not enough. So, we requested FCHVs to contribute for mobile purchase. The FCHVs are very supportive and invested Rs 3,000 each from their private income for the purchase of mobile devices. So now we have mobile devices for all the FCHVs and everyone are more responsible and vibrant in using the devices. This project had literally encouraged FCHVs to invest, take ownership and utilize mobile devices for their assigned tasks.”

Bajrabarahi VDC is a model village in Makwanpur district. They have strong communal bonding and cooperation among community members. This is evident through the commitment and interest in generating intended outcome from the project for the well being of pregnant women and FCHVs in their own community. It has been a model village among the project sites too.

In order to implement project activities successfully and generate sustainability, project team members have organized several meetings with software developers, hospital doctors, public health experts, mobile device supplier, government authorities, health workers, FCHVs and pregnant women. These stakeholders from diverse background have now noticed the potentiality of M-Health in Nepal. They are willing and committed to support such programs in future too ensuring sustainable support in projects future endeavour.

The project is the first of its kind in the country. The project has completed its project cycle. This has generated good insight to barriers to implementing M-Health in Nepal and possible solutions to circumvent these barriers. It has also provided a basis for collaboration between diverse stakeholders.

Finally, the biggest outcome of the project has been its successful policy advocacy. The Local Development Officer (LDO), Gokarna Prasad Sharma formally announced in a workshop

organized by the project on 23rd May, 2014 in Makwanpur that, in the coming budgetary plan (2014/15) in Makwanpur District, a provision for Amakomaya project has already been ensured. The provision expects to establish M-health as a pioneer concept in solving rural health problems of the district. But the details of the provision can only be known after the release of plan. This implies that, the government has agreed to take ownership of the project. So, the project has successful policy implication however, still more is to be achieved at national level.

Project management and sustainability

Tips: Please comment on the general project **administration, staffing, procurement, etc.** specially those aspects contributing to the fulfilment of the project objectives as well as those that have delay project implementation.

Indicate **how the project team has strengthened its capacity** and work towards sustainability with the support provided by ISIF Asia? (new equipment, training, improved administrative skills, lessons learned from the project). Has the organization increased its research or administrative skills of the team involved? Has the project allowed for a particular contribution to capacity building of women or marginalized social groups? Special attention should be paid to the expected or unexpected impact on marginalized social groups.

Have you done **anything different** to provide administrative support for this project **besides your "business as usual"** processes and procedures? Has the project inspired change inside your organization?

Sustainability is to be examined not only in terms of staff retention and financial stability of the organization supporting the project but about the communities' appropriation of benefits perceived from project implementation.

The ISIF Asia Secretariat is very interest to learn if this project has generated opportunities for future development (new funding from partnerships, sponsorships, investment or other funding mechanisms), please provide details.

Please explain if the ISIF Asia grant has helped to consolidate your organization and how. If any of the project activities will continue after the end of the ISIF Asia grant, please describe how your organization is planning to support future developments.

The biggest issue for the sustainability of the project are staffing and financial management. The amakomaya project is aware of these facts, so the project has harnessed some strategies to ensure that the project continues in future too.

The amakomaya project is initiated by Yagiten Pvt. Ltd. Its team members included:

- Mr. Rajendra Prasad Poudel (Team Leader)
- Mr. Rajkumar Dimdung (Software Project Manager)
- Mr. AmitBatajoo (Database Administrator and Java Developer)
- Mr. Chatur Gurung (UI and Graphic Designer)

- Mr. Matthew Thomas (Intern)
- Mr. AmanShrestha (Researcher)
- Ms. Ambika Timila (Financial Manager)

However, for the purpose of further academic studies Mr. Rajkumar Dimdung, Mr. AmitBatajoo and Mr. Matthew Thomas have left the team. But they have been acting as think-tanks and providing their valuable ideas for the team remotely. The project has now hired two new staffs to fill the vacuum, they are:

- Mr. Durga Poudel (Database Administrator and Java Developer)
- Mr. Suniel Gurung (Database Administrator and Java Developer)

Now, there are all together Six members working from Yagiten pvt.ltd. who will be working for the project's future endeavours. However, these members are not enough for effective design, implementation and monitoring of the project. So, the team members are working in co-operation with social mobilize in grassroots, public health expert from Patan Academy of Health Science (PAHS), doctors from TU, IOM, Teaching Hospital, other software developers from Young Innovation Pvt. Ltd, government authorities and local and political leaders from community in project implementation areas to obtain desired outcome on sustained basis.

During the project cycle, software developers had received training on JAVA programming and Android programming. These two programming languages are used to develop Amakomaya android application. These software developers have supported the application development.

In order to enhance technical knowledge in young aspiring programmers and recruit new software developers for the sustainability of the project staffing, a week (7 days) training program was organized by Amakomaya team. The training had given priority to female participants and young programmers from poor economic background and also awarded scholarship to 6 participants based on the set criteria. All together 14 participants were present in the program. From the 14 participants, 2 young programmers have been hired in order to support Amakomaya android application in its future endeavours with the continuous funding support from Yagiten Pvt. Ltd. In this way, programming knowledge was imparted and new programmers were hired for long term sustainability of the project.

The resources of the application had to be centralized in order to gain more benefit from the resources. Originally it was proposed that the 20 mobile devices set will be distributed to 10 VDCs would be getting 2 mobile devices for each health post. But most of the health posts complained that insufficient resources have hindered the progress of the project. So, the number

of mobile devices has been increased to 4 in Tistung, Hadikhola and Jhuwani health post. Based on the performance and commitment, resources have been centralized for desired outcome. With serious commitment from Bajrabarahi health post, a yearlong internet connection service has been installed in the health post by the project. They have already bought mobile device utilizing their own FCHV fund and contribution from FCHVs, so internet connection has been supported by the project. By centralizing these resources, we have gained commitment for sustainable use of the application and increase in outreach of the application to more of the pregnant women.

With the available fund, it is not possible to replicate the project in most parts of the country. It will be enough to carry out pilot project. There are two interface of the application. One in offline (amakomaya android application) and the other is online (amakomaya.com web application). The project team has planned to incorporate some advertisements related to maternal products (e.g. diapers, mother and child cloth etc) on the online and offline application. This will generate business value in the application to ensure that financial resources are gathered to sustainably finance the project for longer period of time.

Since the very beginning of the implementation phase of the project, the project team have been partnering with the Government of Nepal (GoN). This partnership building has supported to gain commitment from the government authorities to take ownership of the project. In fact, the District Development Committee (DDC) in Makwanpur district has already announced to support the project by creating a provision in upcoming budget plan. It has become a great achievement and basis for the sustainability of the project in Makwanpur district. Same kind of initiative must be replicated in other districts in order to influence national level policy.

Impact

Tips: This section of the report does not refer to the project activities, but about the “**bigger picture**”. It will be desirable if the project team can reflect on the **impact that the project has contributed to as part of other actions implemented by your organization and/or your partners.**

Impact refers to the influence the project may had on the way people does things through the use or adoption of the project outputs; changes in the context the project was implemented; changes in the community the project has been working with; and/or changes inside the organizations that have participated in the implementation or the relationships established through the project’s implementation.

Impact is often impossible to measure in the short term and is rarely attributable to a single activity. Impact can be linked to a vision or long-term development goal that your organization might be working towards.

It can be identified as a logical consequence of achieving a combination of outputs and outcomes.

Impact is usually measurable after the project life and is outside the direct control of the project team and the organization.

As aforementioned by ISIF Asia itself, “*Impact is often impossible to measure in the short term and is rarely attributable to a single activity*”, the real impact of the project is yet to be realised. It has only been about 6 months that the project has been implemented. Though the impact has been realized, it is very difficult for the team to attribute or credit of these impacts to the project alone. However, much of the impacts can be attributed to the contribution of the project.

- I. Pregnant women and family members are now talking about pregnancy matter openly:
First and foremost, the exposure to essential pregnancy related information has increased in the project area. The exposure has encouraged pregnant women to copy the contents in their mobile set. The contents has been shared in gathering of Pregnant Women Group (PWG) which is created in every VDCs of Nepal. All the pregnant women in the village gather monthly or bimonthly where essential information is shared with them. The health post in-charge (Mr. Megh Raj Balami) in Bajrabarahi shares that “very little pregnant women used to attend the gathering program. To increase their attendance, they were then categorized as income group where different income generating discussion took place. However, the situation was bleak. But since the application was launched in our health post, we started displaying the contents during PWG gathering. Since then, the number of attendance has increased significantly. The content has actually eased the discussion between pregnant women and their family members so the flow of information has increased significantly.” FCHVs and health workers in other health posts also share the same experience. So, we can claim that, exposure to information in pregnant women and their family has increased which has provided an eased discussion among community members about pregnancy related issues.
- II. FCHVs are empowered to utilize ICT enabled internet based application and devices.

FCHVs in the project site have been trained to utilize mobile device. It is their first experience in utilizing mobile device for information dissemination. Many FCHVs claim that it is more effective than other programs that train us and provide us Information, Education and Communication (IEC) materials for information dissemination. All the FCHVs in the project area are now keen to utilize the application. However, the number of mobile devices provided is insufficient for effective utilization. But Bajrabarahi health post has been a model village and bought mobile devices to all the FCHVs in their area and installed the application. Other health posts are also willing to do the same. So, the project has technically empowered FCHVs and generated interest in them to utilize smart phones as well as influenced VDC level investment towards mobile devices to extract more benefits from the application.

III. ANC visit in Health post and skilled institutional attended birth has been increased.

The health post in-charge claims that ANC visit has increased compared to previous year. In the initial period of the project implementation, many pregnant women visited the health post just to see the application. Many have transferred the contents in their own mobile device. They also express that this increase cannot be attributed to the project alone. But an important role has been played by the project in this increase.

IV. Paperless data reporting system has been adopted by health post and district health office.

The application has created a platform for paperless data collection of pregnant women via internet. All the data are transferred to amakomaya.com web server which can be accessed by the team and other authorized body of Nepal government . It is a valuable source of data that has been collected and which can be accessed by researchers for their study. So, a source of data has been generated by the project.

V. Networking among the maternal health concern stakeholders

The project was implemented in collaboration with diverse stakeholders. These stakeholders have also gained insight on M-Health concept along with project team members. So, the project has been able to create an impression on diverse stakeholders about the possibilities and opportunities in M-Health. It has also been able to gain commitment of support from these stakeholders for the project in its future endeavour.

VI. District Development Committee (DDC) Local Government body of Nepal have changed policy to adopt mobile based maternal caring system “amakomaya”

The biggest impact this project has postulated is its policy implication. The District Development Committee (DDC) has officially declared to have created a provision for the project. It implies that, in the coming fiscal year (2014/15) certain provision will be made for extension of the project in other parts of the district. It ensures that the project will have some resources in grass-root health system for its future endeavour and get support from government authorities for successful extension of the project.

Overall Assessment

Tips: This section of the report is extremely valuable for the ISIF Asia secretariat as it provides evidence about the role and relevance of ISIF Asia contributions in the Asia Pacific region.

Tips: Briefly provide **your own views** on the value and importance of the project relative to the proposed innovation, investment of time, effort and funding involved. Include the strengths and weaknesses of the project and the steps taken to strengthen the credibility and reliability.

This is your opportunity to conduct a **team reflection about the value of the project for the organization**. The following questions might help you to prepare a substantive overall assessment.

- To what extent the project meet its objectives?
- What were the most important findings and outputs of the project? What will be done with them?
- What contribution to development did the project make?
- Were certain aspects of project design, management and implementation particularly important to the degree of success of the project?
- To what extent the project help build up the research capacity of your institution or of the individuals involved?
- What lessons can be derived that would be useful in improving future performance?

The project “Developing mobile based application to support pregnant women in Mountain of Nepal Amakomaya.com” is one of its kinds in Nepal. The project aimed to bring about radical behavioural change in rural pregnant women and their families by providing pregnancy related information via mobile device. In this course, FCHVs were aimed to be mobilized. However, due to insufficient mobile devices supplied to each health post, not all the FCHVs could use the mobile device. One of the devices were kept in health post while other was sent to villages in “gaun-ghar clinic” program (i.e. door to door clinic program provided fixed time in a month by health post). So, as intended, not all the pregnant women in village were exposed to health information due to insufficient number of mobile device. It is the main reason project has decreased the project site from 10 to 7 and distributed 4-4 set in 3 VDCs instead of 2 sets. Still it is not enough the FCHV. However, most of the pregnant women are exposed to the contents and 100% of the pregnant women who visit health post have been exposed to the application. This exposure has given rise to sharing of pregnancy issues among pregnant women. The project couldn’t create a platform to connect rural and urban health workers during the project life-cycle. However, commitment for the task has been acquired from urban-based hospital doctors to implement the activity in future endeavour.

The project has been an asset to all the stakeholders who are interested in promoting M-Health in Nepal because it has brought-forth barriers in promoting M-Health in Nepal. Some of the barriers and problems that the project faced during its life cycle are:

- Illiteracy and lack of technical know-how in FCHVs is a big barrier. The FCHVs in Nepal are selected from Mothers Group (MG) of the VDCs. The members of MG discuss with each others and based on their own analysis, a member of MG is made FCHV. The FCHVs then receive 18 day training and some materials to work as FCHVs. There is no qualification

needed to become an FCHV. One has to be enthusiastic. This has created particular barrier. Though majority of FCHVs can use smart phone device, some old and illiterate FCHVs cannot make use of the mobile device for their task.

- Insufficient resources couldn't generate desired output. Only 2 or 4 mobile devices were provided for a health post. This is insufficient to increase the outreach of information significantly. In providing 2 or 4 mobile devices to FCHVs, it would generate a sense of discrimination among FCHVs. It is the reason that project has reduced project site from 10 to 7 and distributed 4 mobile devices in 3 VDCs Hadikhola, Tistung and Jhuwani respectively.
- The contents in the application are in similar format as other video and audio contents. So, the contents were mixed and displayed in FCHVs personal contents due to which, uneasy situation is created while playing personal contents. To address this problem the "Amakomaya" project is now going to develop more other video content for specific week with the support of other organization. Discussion is going in positive direction.
- The contents in the application are only upto 9 months of pregnancy. There are no information after the birth of the baby. So, the pregnant women have missed essential post-natal information. The extension of the content to cover more areas the project is still doing meeting and networking with concern organizations.
- The contents in the application need to have language relevant to rural context. Some of the words in the application couldn't be understood by the rural populace which created a problem in clearly understanding the content.
- Lack of internet connection in the rural areas of Nepal is another big barrier for the project. Due to this data couldn't be sent on regular basis. As well as, creating new account of pregnant women was hard due to lack of internet connection.

With the aforementioned barriers and problems faced by the project, there are many opportunities that the project can explore in future. The most important output has been policy implication of the project and provision made by LDO of Makwanpur. However, some of the other opportunities are:

- The project is able to generate collaboration with diverse stakeholders who are committed to support in its future endeavour.
- The health post and VDCs are willing to accept mobile device for information dissemination and data collection. It is evident through the commitment from health post and FCHVs and the willingness to divert FCHV fund to purchase smart phone and installation of the application..
- The government of Nepal have already made a provision for the project extension. Sustainable support from government authorities is acquired through this commitment.
- The urban based hospital doctors from Teaching Hospital have provided their commitment to generate new contents and create a doctors shell/committee that will assist rural health workers in future.

- The software developers are committed in developing relevant application for pregnant women. This will be supported by Yagiten Pvt. Ltd. under its Corporate Social Responsibility (CSR) fund.
- The data of registered pregnant women from project site have been live displayed in www.amakomaya.com webpage. This shows a positive sign for researchers and policy makers. as this data will be a valuable asset for them.

The project was implemented in collaboration with diverse stakeholders. However, one of the most crucial collaboration was done with Mr Sudershan Poudel, Public health expert in Patan Academy of Health Science and Dr. Rajendra Wagle, Head of Community Medicine Department, Tribhuvan University, Teaching Hospital. They have played crucial role in site selection, acquiring government authorities permission and successfully conducting workshop and policy advocacy in Makwanpur.

Furthermore, the project has been able to generate skilled manpower for its sustainability. The software developers are trained and researchers are well aware of the concept of M-Health in Nepal. The data are collected and still more is to be collected in future for proper research and policy recommendation.

Overall, real impact of the project is yet to be realised as ICT intervention in health system takes some time for impact evaluation. With additional resources and activities by the project team members, intended outcome can be reached. The project is able to gain commitment from all the diverse stakeholders for its future endeavour. It has postulated current barriers and problems faced by the project and opportunities of possible collaboration for future. So, the project will now work on solving current technical problems and collaborate for surmounting social and economic barriers faced till date. Furthermore, the project will capitalize on opportunities brought-forth during the life-cycle and make arrangements for required resources to scale up the project in other underserved areas of Nepal.

Recommendations

Tips: *Include any recommendations in this section that you and your project team, the organizations supporting the project and the community you worked with, would like to make to other practitioners or researchers on the field facing similar problems or implementing similar solutions.*

Please take a minute to share recommendations with the ISIF Asia secretariat that might help to improve the support provided.

- One of the biggest barriers for the project was insufficient resources. There are at least 9 FCHVs in a health post but the mobile devices supplied were just 2 or 4. While mobilizing the device, a sense of discrimination was felt by the FCHVs. So, resources to be mobilized must be increased for desired result.
- The projects have not allocated internet bandwidth cost for distributed Android devices (Tablet and mobile). So it is recommended to provide minimum internet bandwidth cost along with the devices for limited time of time. Although project has already contributed internet bandwidth for Bajrabarahi health post.

- The contents in the application only include information up to 9 months of pregnancy, But the information must include post natal information after delivery of the baby too.
- The GoN must support M-health in Nepal as there are insufficient health worker, health facilities and unskilled health workers operating in rural areas. If the patient cannot reach to doctors, the information from doctors must be sent to patients to cease irrelevant referral to urban hospitals.
- Internet Service Providers must extend their services to rural areas so that rural populace can be benefited from access to widespread information in the internet.
- All the stakeholders' project must continue their support for future endeavour of the project.
- The project has been developed on the basis of support and services. It is recommended to focus on research and study specially critical pregnancy issues.

Bibliography

Tips: Include complete bibliographic references to all sources (printed, on-line, quotes, etc) used to prepare the different sections of this report. The APA style guide offers examples about how to reference a variety of sources. <http://www.apastyle.org/learn/quick-guide-on-references.aspx>(as accessed on 3/7/2013).

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