

Impact Study of Nubia Integrated Development Program



March 2016

Table of Contents

ACKNOWLEDGEMENT	3
ACRONYMS	4
1 EXECUTIVE SUMMARY	5
2 PROJECT PROFILE.....	12
2.1 FACTS ABOUT ASWAN.....	13
2.2 OBJECTIVE OF THE PROJECT	15
2.3 PURPOSE OF IMPACT ASSESSMENT	16
3 METHODOLOGY OF THE IMPACT STUDY	17
3.1 SAMPLE DESIGN	18
3.2 TOOLS DESIGN	19
3.3 ASSESSORS	19
3.4 ORGANIZATIONAL CHART OF THE PROJECT.....	20
4 EVALUATION FINDINGS OF WOMEN EMPOWERMENT TRACK	22
5 EVALUATION FINDINGS OF REMOTE TELE-MEDICINE TRACK.....	36
6 EVALUATION FINDINGS OF ENTREPRENEURSHIP/EMPLOYABILITY TRACK	51
7 EVALUATION FINDINGS OF EDUCATION TRACK.....	64
8 CONCLUSION.....	82

Acknowledgement

Valuable inputs for this report were provided by Egypt Trust Fund staff headed by Dr. Hoda Dahroug – National Project Director.

The report is in large part based on findings of field surveys and interviews, which were conducted in Nubia during Jan -Feb 2016. These surveys were benefited greatly from meetings and support from a number of staff and officers at MCIT. In particular, I would like to gratefully acknowledge the time and generous assistance provided by various levels of Trust Fund officers.

The assessment also benefited greatly from the generous co-operation of Nubian community members such as Mr. Mahmoud Aliaan Ibrahim head of Local Administrative Unit in Nasr El Nuba, Mr. Mohamed Tawfik Head of Teacher Syndicate in Nasr El Nuba, and Mr. Abd El Reheem Ahmed Abd El Ghany Omda of Ambercap village. Hope that this report contributes further to the improvement of Nubia socio economic conditions.

Dr. Dina El Kayaly
Consultant
March 2016
Cairo, Egypt

Acronyms

CSR	Corporate Social Responsibility
ELCC	E-learning Competence Center
3G	Third generation of mobile telecommunications
GMC	AL Gasem Medical Center
GP	General practitioner
HD	High definition
HW	Hard Ware
MCIT	Ministry of Communication and Information Technology
MOH	Ministry of Health
MOU	Memorandum of Understanding
NGO	Non-Governmental Organization
SFD	Social Fund for Development
SME	Small and Medium size Organization
SW	Software
UNDP	United Nation Development Project
WHO	World Health Organization

1 Executive Summary

The Nubia Integrated Development Project was launched in September 2013 with an ambitious aim of ***Empowering the local Nubian community in areas of education, health, employability and women empowerment using ICTs.*** The project was funded by AGFUND and implemented by the ICT Trust Fund - a partnership mechanism between the Ministry of Communications and Information Technology (MCIT) and the United Nation Development Program (UNDP).

Overall Goal of the project: Empowering the local Nubian community in areas of education, health and employability through integrated and focused interventions using ICTs, and enabling civil society organizations to play effective role in fulfilling this goal. But more specifically:

- Enhancing the role of Civil Society Organizations (CSOs) in developing the Nubian community and promoting community participation as a means for community development. This objective interacts with all following objectives as it is the ***deployment mechanism*** of the project
- Enhancing informal education and capacity building services for different target groups of Nubian community – ***Education Track***
- Improving the healthcare services by Tele-medicine solutions for public in Nubia – ***Health Track***
- Increasing self-employment and income generation opportunities through empowering M/SMEs and entrepreneurship among youth in Nubia - ***Entrepreneurship/Employability Track***
- Empowering Nubian women using ICTs to be able to play more effective roles in the Nubian community - ***Women Empowerment Track***

Five NGOs were selected to become the main partners of this project, implementing the various tracks through these selected the NGOs with a clear focus on building capacity of these NGOs, so they could offer these serves further to their Nubian community. The partnership with NGOs was the main method selected to implement and monitor the various tracks of the project, this approach facilitated the acceptance of Nubians that embraced the outcomes and impacts of this project.

On completion of this project, an impact assessment on the project was carried out during Jan-Feb 2016. The objective of the assessment was to find “best practices and future expansions”, to draw lessons for the national level policies, to identify areas where improvement may be necessary to enhance impact and to provide options for the future development in Nubia, Aswan and elsewhere.

Further, the study was to provide a qualitative and quantitative assessment and analysis of the processes and results of the above mentioned project as per project objectives. The data collection was done by an independent research team and the techniques of data collection included in-depth interviews, surveys and field visits to families at Nubia villages.

The study contacted almost 40% of the target population which is a ratio way more than the accepted statistical sample size which is 5-10% of the population understudy.

As a whole, the project design was flexible enough to accommodate changing situations, and various needs. Most of participants were screened against preset criteria for eligibility. They were eager to acquire income generation skills to improve their family's economic conditions. The interventions and trainings provided by the project included: traditional handicrafts, IT literacy, social media and e-marketing, entrepreneurship, tele-medicine services and so on.

The study concluded that the implementation of the project was quite effective. Project management was clearly set out in the framework of monitoring system for the project. A monitoring and reporting system was built in each NGO to provide constant information to the project headquarter.

The project provided a second chance for Nubians in remote underserved areas to improve their skills that will be useful as life skills. The communities and families were all appreciative of the project. The participants of the various four tracks tried to attend every class of the training and participate in the various interventions supported by their communities. Through interventions and training the participants not only learned skills and knowledge, but also became more self-confident, especially the Nubian women.

The project also generated hope for the whole community. Using the skills learned, some participants improved their family economy and provided a good example for other Nubians. Through training and experience exchange between peers, more and more participants took part in the various activities. This means the whole community took a step towards improving quality of their lives.

From the interviews and field visits the impression gained were that project staff has put in a great deal of effort to improve healthcare access to service, local economy, women empowerment and educational development in areas where the assessment was conducted. They appreciated MCIT assistance to their communities and hoped for continuation of project activities given the extreme backward nature of their communities.



The following section will document the qualitative and quantitative assessment and analysis of the processes of the above mentioned project as per project objectives:

- Starting with outcomes of the various tracks, which represent the short term impact of the Nubia Integrated Development Project to be:

	Women Empowerment	Employability	Health	Education
With the selected NGOs	<ul style="list-style-type: none"> Building capacity of the NGOs working in Nubia Better usage of Information Technology gadgets 			
	<ul style="list-style-type: none"> Increasing demand for offered services Better products lead to local and international exposure Created a tier of professional trainers in Nubia 	<ul style="list-style-type: none"> Increasing demand for offered services Created a tier of professional trainers in Nubia – creating business mentor 	<ul style="list-style-type: none"> Acceptance of tele-medicine idea at different levels starting by NGOs Increasing demand. Raised demand for other specialization via the tele-medicine Better management of the medical cases Patient record archive as a nucleuse for local community database On the job learning 	<ul style="list-style-type: none"> Saving time and money and guaranteeing sustainability of updated content online

- Regarding the impact of the various tracks, which represent the long term impact of the Nubia Integrated Development Project. We will start by detailing the impact on the implementation methodology followed by the impact on the Nubian community.

Impact on the implementation methodology

- ICT-Trust Fund saved lots of money by using SW level tele-medicine platforms instead of expensive HW, enjoying the possibility of becoming an outreach program to iconic healthcare institutions, efficiently utilized limited medical staff and increased its opportunity to utilize crowd funding to finance other kit/node at another place. ICT-Trust Fund managed to create a winning formula for implementing tele-medicine
- ICT – Trust Fund saved time and money and guarantee sustainability of updated content by using the I-frame. They capitalized on the success of other entities and saved effort by creating an I-frame to offer important links to Nubians while saving the intellectual property of the founders of these websites such as Nafham and Tahrir Academy. This approach save the time, money and transportation offering Nubian the opportunity to learn at their own convince.
- ICT-Trust Fund used online training in some of its activities, saving time and money and staying in touch with the trainees at remote areas. A methodology that will used onward
- ICT-Trust Fund started cooperation with E-Finance and IMC to establish the e-Commerce platform. Cooperation with IMC aims to improve the product quality and facilitate the product delivery to the different target markets, while the cooperation with E-Finance aims to provide trusted electronic payment option. The ICT-Trust Fund is responsible for hosting and developing the E-Commerce platform and it is also responsible for the integration between al cooperated parties.

Impact on the Nubian Community

The following table quantifies the impact of the various tracks on Nubian community:

Women Empowerment	Employability	Tele-medicine	Education
<ul style="list-style-type: none"> Relative improvement to household income Change the attitude of Nubians to produce functional products & become entrepreneur Saving the environment Empowering the NGOs and trainers Exchanging experience among Nubians enriching the produced products 	<ul style="list-style-type: none"> Relative improvement to household income through SMEs/ entrepreneurship Change the attitude of Nubians Integration between more than track enhances the impact Empowering the NGOs and trainers 	<ul style="list-style-type: none"> Better economic conditions & savings Change the attitude of Nubians Local community medical database Empowering the GPs and related staff in the Nubia with Top Notch Technologies 	<ul style="list-style-type: none"> Change the attitude to use the materials in Nubia and to develop it in Aswan Exposure to online training Provided the NGOs with some exposure to this track that will prove to be very important in the near future

ROI of the Nubia Integrated Development Project is very encouraging, as the estimation tells that the payback period of the invested amount is very short. The following table details the estimation assumption and calculations. The numbers are based on the field research done during Jan-Feb 2016:

Budget	Outcomes (short term impacts)	Expected Impact (for the year to come - 2016)
1,500,000 LE (200,000\$)	Tele-medicine: Beneficiaries savings: 1000LE estimated traveling cost x 260 beneficiary at one clinic = 260000LE Women empowerment: Vocational ladies extra income: 25 ladies gained 2000-3000LE after selling their products = an average of 62,000 LE Employability: Trainers: 10 trainers managed to give extra courses increasing their income by 10-30% which is around 500 LE monthly = 50,000 LE for the year to come Education: NGO: computer equipments for 2 NGOs with an average of 20,000LE	Tele-medicine: Beneficiaries savings: 1000LE estimated traveling cost x 400 beneficiary at two clinics = 400,000LE NGO + GP revenue: 60LE fees for the remote diagnoses x 400 beneficiary at two clinics = 24,000 LE Women empowerment: Vocational ladies extra income: 60% witnessed an income raise of 20% on average (average household income is around 3000 LE), then 600LE of extra income to 60 vocational lady = 36000 LE monthly = 423,000 LE for the year to come Employability: Trainers: 10 trainers managed to give extra courses increasing their income by 10-30% which is around 500 LE monthly for at least 5 months = 250,000 LE for the year to come Education: Students savings: 100-200 LE costs for private lessons if used EduNuba = 80,000 LE NGO: Utilizing the IT labs for trainings at economical fees such as 100LE per course for 100 participants x 5 NGOs = 50,000LE
Total	392,000 LE	= 1,227,000 LE

It is crystal clear from the table above that the ROI of this project is very high, and that its payback period is very limited. This project can pay its fees in less than two years (2015/2016) which makes it very successful project to build upon. Notice that our estimation did not include the governmental costs of establishing a healthcare facility unit serving the target segments or sending healthcare staff to these remote areas. We focused on the direct impact on the Nubians in our assessment.

Finally the future projects driven based on the expected impact of the above mentioned project are enormous, the following tables documents some of them:

Women Empowerment	Employability	Tele-medicine	Education
<ul style="list-style-type: none"> ▪ Link the NGOs with a potential exporter or wholesaler promoting their products ▪ Link NGOs with young designers ▪ To talk to private sector with CSR initiative to finance another project ▪ Applied arts universities can be very interested to help the Nubian to develop their functional products ▪ Work with Other NGOs in Aswan to capitalize on the success story ▪ Work with donor organizations focused on women empowerment. 	<ul style="list-style-type: none"> ▪ Upgrade the NGOs to become eligible to get finance and re-offer it to Nubian entrepreneurs through the SFD ▪ Link the NGOs with entities such as Misr EL Khair ▪ Link them to adverting agencies that can use their products as conference giveaways ▪ To talk to private sector with CSR initiative to finance another project ▪ Work with donor Organization focused on entrepreneurship and employability 	<ul style="list-style-type: none"> ▪ Serve more than one clinic ▪ Use GMC (mobile kit) to deliver the healthcare service in other areas in Aswan ▪ To form a protocol with Liver patient care association ▪ To organize a series of virtual campaign with the cooperation of Cairo University – Kasr AlAiny ▪ Donors: Implementing a successful National Egyptian Telemedicine Program ▪ Other NGOs in Aswan 	<ul style="list-style-type: none"> ▪ Find a way to work offline offering e-library to students ▪ Separate content creation from delivery ▪ CSR initiatives to finance IT labs at the NGOs ▪ Consider vocational training

The results of the impact evaluation show that the Nubia Integrated Development Project had a positive impact on all four tracks and helped to build capacity of the partner NGOs. As well as, a broader positive impact on household income and expenditures was clearly detected across most of the tracks. As such T this is considered a very promising project.

2 Project Profile

The Nubians are population who lived in the geographical region known as Nubia in southern Egypt and northern Sudan. One hundred and twenty thousand Nubians were relocated beginning in 1964 because their villages were inundated by the Aswan High Dam Lake. Some argue that the name "Nubians" derives from the ancient Egyptian word **nab** meant "gold" and that the Ancient Egyptians used that term to refer to the Nubian Valley because of the gold mines that were nearby.



In 1964, the Nubian community was resettled due to the construction of Aswan Dam. At that time when the larger society was experiencing an annual population increase ranging from 2.5 to 3.0 percent, Nubia was experiencing a population decline. An imbalance existed in the sex ratio, especially in the middle-range age. Such an imbalance further led to natural decrease in the population. Among the Egyptian Nubians this population pattern was maintained after relocation.

Agriculture was, and still is the basis of the Nubian economy. The scarcity of cultivable land was an outstanding feature of old Nubia. As a result, men migrated to cities to find work, and women were left to do the agricultural work. The Nubians in Egypt had two cultivation seasons, winter crops and summer crops.

Women used to make utilitarian items—plates, mats, clothes, and so forth. Today Nubian women no longer engage in craftwork heavily as before because household needs are readily available to them in the market. Nubian men leave blacksmithing, clay making, carpentry, weaving, and hair shaving to non-Nubians. They prefer to engage in crafts that are related directly to agriculture, becoming grocery-store owners or cab drivers.

Nubians live in houses painted with bright colors. Traditionally, the floor was made of sand and not all the rooms were roofed. Protection against rain is not a priority since Aswan is one of the driest places in the world.

Nubia is an integral part of the governorate of ASWAN and the following section will describe the governorate of ASWAN in numbers.

2.1 Facts about ASWAN

The governorate of ASWAN is divided into 5 geo-centers; each center is related to local units and number of villages as demonstrated in the following table:



محافظة أسوان

Center	Cities مدن	Local units وحدات محلية وقروية	Main village قرى رئيسية	Smaller villages كفور ونجوع
ASWAN	2	4	11	60
Daraw	1	4	7	56
Kom Ombo	1	8	15	140
Nasr El Nuba	2	9	39	8
Edfu	4	13	35	250
Total	10	38	107	514

Source: CAPMAS – Jan 2015

The population in ASWAN is estimated to be around 1.5 million inhabitants in around 333 thousand families as demonstrated in the following table:

Center	Total	# of families	
ASWAN	415,315	101,457	In two main cities: Aswan and abou Simble touristic
Edfu	439,026	101,427	In 4 main cities
Kom Ombo	371,719	82,750	In one main city of Kom Ombo
Nasr El Nuba	91,971	20,677	In two main cities: Nasr El Nuba and Kalabsha
Daraw	117,807	27,462	In one main city of Daraw
Total	1,425,738	333,773	

Source: CAPMAS – Jan 2015



The following table reports the number of schools in the governorate of ASWAN:

Education stage	ASWAN Center	Daraw Center	Kom Ombo Center	Nasr EL Nuba Center	Edfu Center	Total per stage
Pre-Elementary	46	29	73	38	109	295
Once class-schools	17	16	39	13	19	104
Elementary	114	36	104	52	156	462
Preparatory	66	19	65	33	96	279
High school- general program	21	3	7	5	15	51
High school- industrial program	14	4	8	3	9	38
High school- commercial program	11	2	1	4	4	22
High school- agriculture program	1	1	1	1	1	5

Source: CAPMAS – Jan 2015

A closer look to the number of schools (elementary and preparatory) explains why the literacy is high among Nubians, but higher education institutes and universities are limited to City of Aswan only.

Other dimension of education is the vocational training, the table below reports the number of vocational training center in governorate of ASWAN:

	ASWAN Center	Daraw Center	Kom Ombo Center	Nasr EL Nuba Center	Edfu Center
Vocational training center	5	-	1	2	1

Source: CAPMAS – Jan 2015

A closer look to these vocational training center highlights that these centers are abundant and not utilized properly.



Regarding hospitals and healthcare units, the facilities are limited as reported in the following table:

	ASWAN Center	Daraw Center	Kom Ombo Center	Nasr EL Nuba Center	Edfu Center	Total
General or central hospital	1	1	1	1	2	6
Primary care units	31	22	40	32	73	198
Specialized hospital	3	1	1	-	2	6
Private hospitals		9	-	5	-	16

Source: CAPMAS – Jan 2015

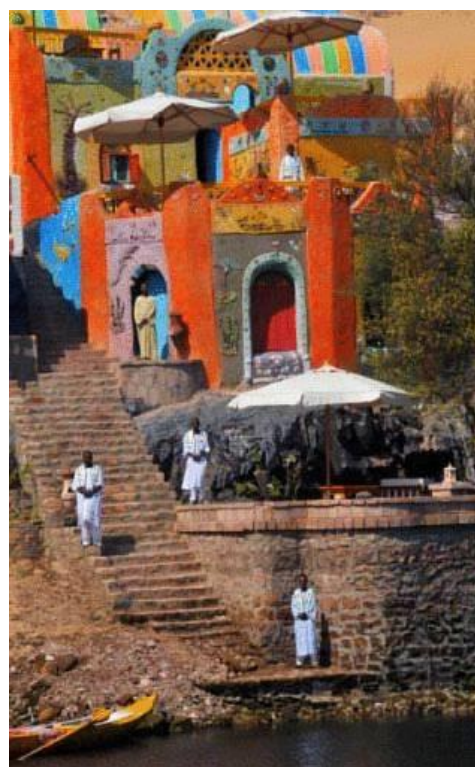
Again, a closer look indicates the need for better healthcare services especially away from the city of Aswan.

2.2 Objective of the project

Overall Goal of the project: Empowering the local Nubian community in areas of education, health and employability through integrated and focused interventions using ICTs, and enabling civil society organizations to play effective role in fulfilling this goal.

Specific objectives:

- Enhancing the role of Civil Society Organizations (CSOs) in developing the Nubian community and promoting community participation as a means for community development. This objective interacts with all following objectives as it is the **deployment mechanism** of the project
- Enhancing informal education and capacity building services for different target groups of Nubian community – **Education Track**
- Improving the healthcare services by Tele-medicine solutions for public in Nubia – **Health Track**



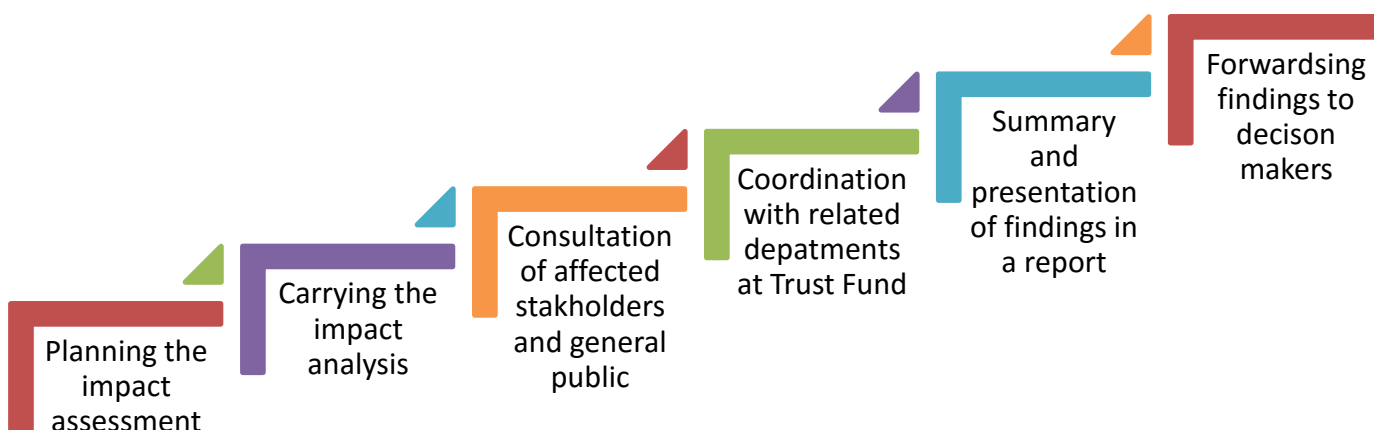
- Increasing self-employment and income generation opportunities through empowering M/SMEs and entrepreneurship among youth in Nubia - ***Entrepreneurship/Employability Track***
- Empowering Nubian women using ICTs to be able to play more effective roles in the Nubian community - ***Women Empowerment Track***

2.3 Purpose of impact assessment

- 1- To assess the extent to which the project has:
 - Enhanced the role of Civil Society Organizations (CSOs) in developing the Nubian community and promoting community participation as a means for community development.
 - Empowered Nubian women using ICTs to be able to play more effective roles in the Nubian community
 - Increased the self-employment and income generation opportunities through empowering M/SMEs and entrepreneurship among youth in Nubia through ICT related services
 - Improved the healthcare services by Tele-medicine solutions for the Nubians.
 - Enhanced informal education and capacity building services for different target groups of Nubian community
- 2- To review the lessons learned from the project implementation through NGOs in developing the Nubian community and promoting community participation as a mean for community development.
- 3- To identify the way forward through suggesting future project capitalizing on the success achieved in Nubia

3 Methodology of the Impact Study

Impact Assessment is formal, evidence-based procedures that assess the economic, social, and environmental effects of an intervention. The procedure includes:



The data collection process was undertaken through:

- A review of project documents especially the monitoring and evaluation reports and mid-term report
- Discussions with project officers at Trust Fund*
- Discussions with research team conducted the needs assessment study in February 2013
- Site visits to the Nubian site and talking to NGOs participating in the project
- For qualitative analysis: Focus group discussions and depth interviews through key questions with beneficiaries and stakeholders (trainers, info-ladies, vocational ladies, SMEs owners and entrepreneurs, patients, General practitioner, reference doctors, community leaders at the villages).
- For quantitative analysis: Survey through key questions with beneficiaries and stakeholders

* Egypt Information and Communication Technology Trust Fund (ICT-TF) was jointly established by the Ministry of Communications and Information Technology (MCIT) and the United Nations Development Programme (UNDP) in January 2002. The ICT-TF is a mechanism that aims to investigate the different means by which ICTs can enrich the livelihood of Egyptian citizens, as well as to foster social, economic and environmental development by creating public-private partnerships to support the use of ICTs. By empowering communities with access to valuable tools, skills, training and information, ICT-TF hopes to broaden the horizons of Egyptian citizens and increase their competitive advantage in a modern technological society. http://www.ictfund.org/page/24_Background

3.1 Sample design

The project covered the two locations targeted by the project:

- Nasr EL Nuba
- Abou Simbel touristic

The consultant deployed multi-stage cluster sampling to collect a more representative sample of the population understudy. Random method was used when selecting respondents in the predetermined segments assuming homogeneity with clusters and heterogeneity between clusters. The study was carried out to provide a qualitative and quantitative (where data was available) assessment and analysis of the processes and results of the project as per project objectives. The sample design was as follows:

Components	Segments / clusters	Population	Actual sample	Method
Health	Doctors / consultants	3	3	Depth interviews
	Beneficiaries	140 telemedicine + 120 virtual campaign	15	Depth interviews + survey
Education	Teachers	77	23	Depth interviews + survey
	Students	580	26	Depth interviews + survey
Women empowerment	Info ladies	21	7	Depth interviews + survey
	Producers / beneficiaries	99	16	Depth interviews + survey
Employment	SMEs beneficiaries	152	37	Depth interviews + survey
	Trainers	28	16	Depth interviews + survey
	Influencers	3	3	Depth interviews
	NGOs	5	4	Depth interviews
Total Sample			150	

The sample size was calculated to achieve more than 90% confidence interval to complement the previous assessments done per component during implementing of the project and it was complemented with detailed depth interviews.

3.2 Tools design

The assessment was based on open-ended questions administered through focus group discussions and depth interviews with stakeholders and beneficiaries. Depth Interviews were held with a number of beneficiaries to obtain greater insight into their personal experiences and the manner in which the project had changed their lives. Questions were designed to raise basic issues on the assessment. Qualitative data was supplemented with quantitative data on the cost of traveling to medical center in ASWAN or Cairo. Semi-structured questions were designed to be used in the focus group discussions and depth interviews the focused on the following areas:

- To understand the knowledge gained by the target group
- To explore the extent to which the target group were able to access resources for bettering family economic conditions.
- To understand methodologies developed by project to encourage participation
- To understand the extent of the involvement of NGOs and their role

Different sets of questions were prepared for each group of stakeholders and beneficiaries. The topics of questions changed according to the role and expectation of each party in the project. The questions explored changes in the perceptions of beneficiaries related to the services offered to them and what else do they need.

During discussions, participants were facilitated to discuss aspects of the project amongst themselves. Documentation of group discussions and depth interviews was done through photographs, audiotapes and written notes.

The findings were compared to the project document especially the monitoring reports for validation.

3.3 Assessors

We depended on a team of highly skilled researchers – independent of MCIT team of researchers - to gather the data according to the following guidelines:

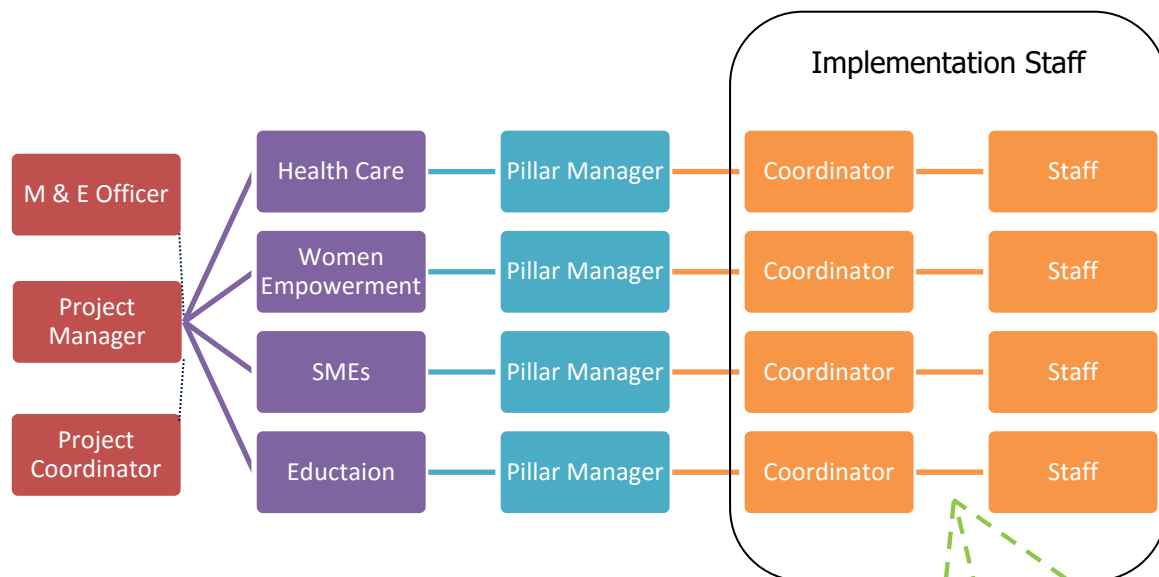
- Selected researchers to conduct the depth interviews and surveys. Each researcher had at least 3 years' experience in similar assignments. We hired a call center to conduct the tele-surveys and recruit for the needed interviews.
- The team was headed by a team leader with more than 5 years' experience in similar assignments
- Recruited a data analyst to conduct the content analysis and calculate the indices under the supervision of the research consultant Dr. Dina El Kayaly

3.4 Organizational chart of the project

The organization chart below shows the structure and linkages between the different levels. There are pillar managers specified for each dimension of the four dimension of the project to stay focused and accelerate the implementation. At the functional level, the coordinators were close to the beneficiaries and provided direct monitoring support to the project implementation.

The design was largely flexible. Interaction flow was mainly top-down. It started by a detailed study of the target area aiming to reflect their needs in the project understudy. Also the project intentionally integrated its four pillars aiming to create maximum impact on the Nubian community.

Project staff heard the views and opinions of the beneficiaries and conveyed it to the coordinators and upwards.



The following four sections will detail the assessment of the four main tracks of this project. The assessment was structured covering the following subtitles:

- 1 Was the design appropriate?
- 2 Has the implementation been effective?
 - 2.1 Effectiveness elements of implementation
 - 2.2 Milestones of the main activities
 - 2.3 Output indicators
- 3 Outcome indicators
- 4 How has the track brought impacted on the lives of the community at the designated area?
- 5 How sustainable are the ideas and process introduced through the track?
- 6 What are the inputs from beneficiaries?
- 7 Future expansions
- 8 Challenges that needs to be addressed
- 9 Lessons Learned



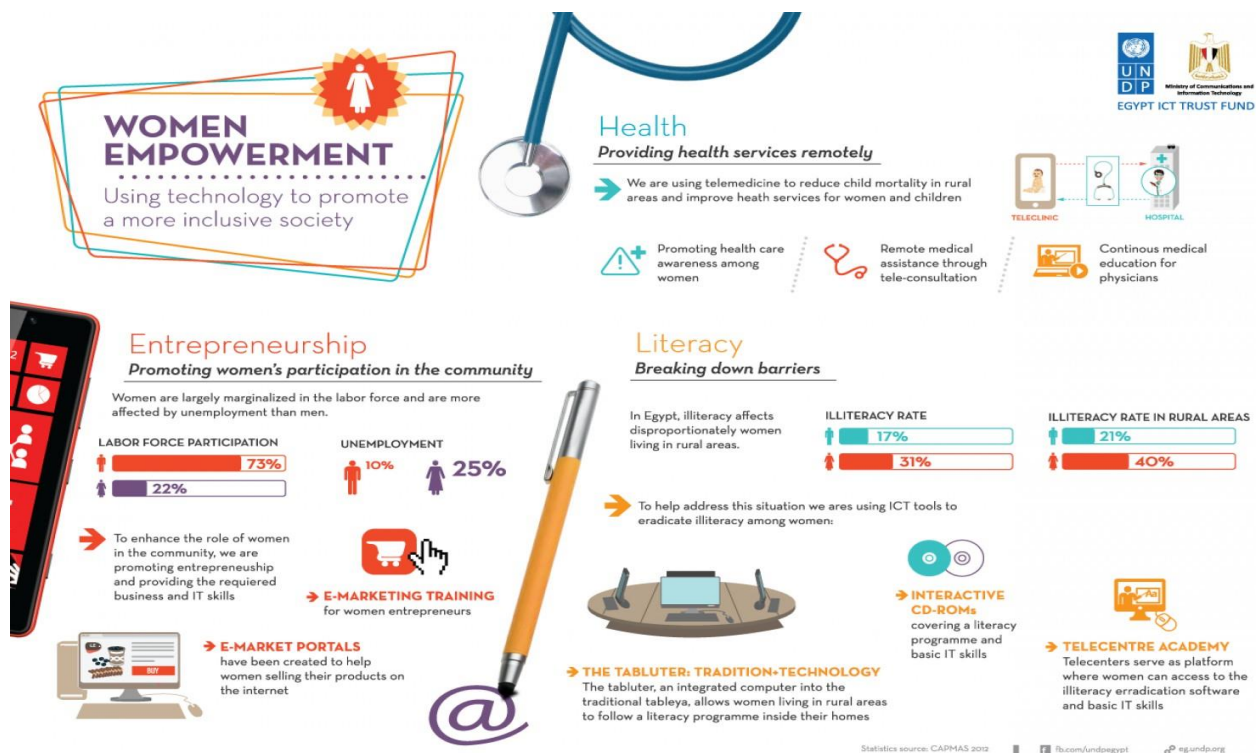
4 Evaluation Findings of Women Empowerment Track

Empowering women is an initiative to encourage women in underdeveloped areas to participate fully in economic life across all sectors which is very essential to build stronger economies, achieve internationally agreed goals for development and sustainability, and improve the quality of life for women, men, families and communities.

Development is unthinkable where half of the population is marginalized. Women comprise almost half of the population of Egypt, but a high majority of the population that is living under poverty. Hence, empowering women alone can alleviate more than half of the poverty in Egypt. Moreover, empowered women can empower their families and society.

Pilot study

During 2008-2011 the trust worked with SIWA women. Illiteracy heavily affects women living in SIWA. Trust Fund worked on tabluter which is an integrated computer into traditional tableya, allowing women living in SIWA to follow a literacy and awareness program.



The women empowerment track was combined with entrepreneurship track. The later track was much more successful, we will talk about in the following section.

The SIWA project faced a key challenge:

- In SIWA married women never leaves their homes, so only unmarried women participated in training.
- No fund was generated to sustain this program
- Only unmarried women do work, so traditional handicrafts training was not that successful

Lessons learned were all about selecting the proper environment hosting the model:

- Need a more open environment
- Work more with influencer of the target communities
- Develop a sustainable model

4.1 Was the design appropriate?

First decision was where to go?

Trust fund predefined specific selection criteria for the women empowerment track covering:

- Serving frontier areas suffering from very limited services
- Participating in an open minded population, internationally exposed and yet have strong cultural relationships
- Serving big community, where Nubian population is around 10% of Aswan's population
- Serving a community that is in need for multiple interventions integrating women empowerment with entrepreneurship.

To avoid the challenges faced in SIWA and to capitalize on Nubian culture, the project was hosted by more than one NGO and depended on influencers to promote the idea to the community. The NGOs were selected based on a comprehensive selection process. Training was provided to NGOs' staff to build their capacity before serving the beneficiaries.

The project focused on three handicrafts: Klim, Arjoun, Embroidery and Sewing where raw materials are available in Nubia. The project selected these handicrafts to help preserve the Nubian Heritage and develop it, in cooperation with the Industrial Modernization Center IMC.

The project was responsive to local needs as evidenced through visits. Project staff considered the concept of peer training as a good training technique. Discussions and interviews with project participants indicated that beneficiaries were satisfied that their opinions were sought and incorporated in the project design.

Using info-ladies to help vocational ladies (beneficiaries) to promote their production was good in principle but faced some road blocks. Some info-ladies controlled the market and did not share the benefits with the vocational ladies! A better access to market techniques might be needed.

4.2 Has the implementation been effective?

The track management mechanism was clearly set out as per the Framework of covering communication; decision-making procedures, report production, record keeping and a feedback mechanism were clearly delineated at each level. Consultant was able to verify that project staff at all levels did adhere to the framework, which has facilitated project management and monitoring.

4.2.1 Effectiveness elements of implementation:

▪ Monitoring

The project management unit at the NGOs provided direct management and monitoring support to head office. Outcome of field visits, reports from the lower levels and other track-related activities were reviewed at the periodical review meetings.

The general components of monitoring for the track implementation included:

- Field visits by the project staff
- Activity reports
- Evaluation of work
- Project mid-term reports

Still to create a more effective monitoring the project staff should:

- Depend on external researcher checking the milestones to generate corrective actions
- Create on comprehensive database for the project to avoid any duplication enabling better tracking and longitudinal studies
- Recruit a project advocate working on the grounds to be a closer eye on the project facilitating implementation and integration between various tracks of the projects



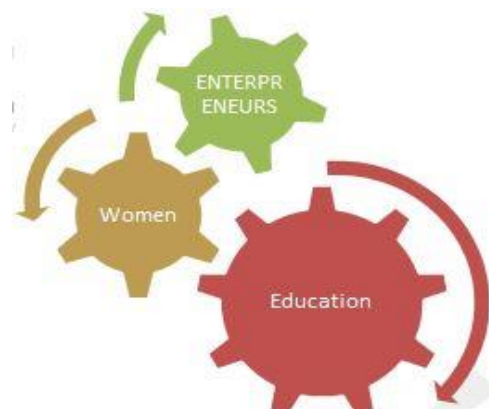
▪ Cooperation

In order to provide the training without reinventing the wheel, the project approached IMC seeking their help with providing training program on traditional handicraft.

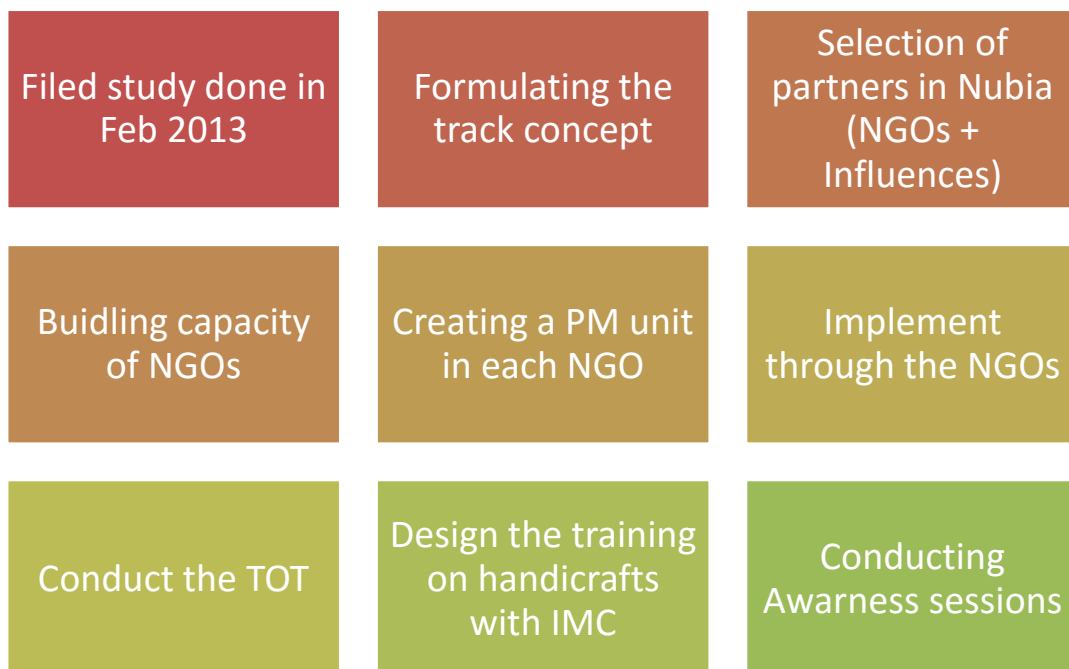
IMC is a governmental agency that was established to support the industrial enterprises, create an enabling business environment for the industrial sector, in coordination with the Ministry of Industry, Trade and SMEs.

- **Getting the maximum**

The info-ladies are responsible for raising awareness and training the beneficiaries and helping them to market their productions. Integrating the women empowerment track with the SME track saved resources and generalized the benefit from the individual to the family and to the community.



4.2.2 Milestones of the main activities



4.2.3 Output indicators

Key objective: Empowering Nubian women using ICTs to be able to play more effective roles in the Nubian community

We will discuss the effectiveness of implementation along the key milestones of the women empowerment track's implementation.

MS1: Filed study done in Feb 2013

The project sent a team of researchers to study the target community in terms of education, healthcare service, role of women, economic activities and the role of SMEs. They covered two main centers since they are high populated areas:

- Abu Simbel – touristic center of ASWAN Center
- Nasr EL Nuba Center that has 44 surrounding villages, the research team took a sample of 6 villages

The study reported the following facts:

- Nubian population is around 300,000 – 350,000 inhabitants
- Illiteracy was not as high as expected in this province
- Women worked in various economic activities such as, raising poultry and traditional handicrafts
- Abou Simbel depended on tourism so it was much more affected with the tourism crisis and they excelled in embroidery and sewing. While Nasr EL Nuba is a more typical sudden community with more diversified economic activities. Nasr EL Nuba is more known for Klim and Arjon handicrafts.
- All Nubians believe in solidarity (تكافل) through their associations everywhere.
- The youth go to universities located at nearby cities due to low income levels which explain why some professions are missing.
- The solar phenomena in Abou Simble temple is a national day in Nubia



MS2: Formulating the track concept

Based on the detailed scan, the track was formulated to promote Nubian heritage by training the Nubian ladies to three specific handicrafts: Klim, Arjon, Embroidery and Sewing. The track was built around a production unit (info-lady + a group of vocational ladies that lacked knowledge or access to IT). The track also focused on encouraging the info-ladies to market the production through e-marketing and social media marketing. The last part of the concept was to encourage the info-ladies to have a role in raising awareness in the Nubian community.

MS3: Selecting the NGOs and Influencers

The market scan identified the influencers that the Nubian community agrees upon and the NGOs that are active in Nasr EL Nuba and Abou Simbel –touristic. Interviews were conducted with those candidates, around 30 names compiled through market scan or provided by the representative of the Egyptian Teachers Syndicate in ASWAN. The interviews refined the list to 15 contacts.



MS4: Building capacity of NGOs

The project staff held a meeting with the NGOs to build their capacity by giving them forms and templates needed for this track. Also gave them a task to evaluate their readiness and responsiveness. Four NGOs were really interested in this track.

MS5: Created a PM unit in each NGO

The project decided to create a Project Management (PM) unit in each NGO to help manage the project and provide monitoring data.

MS6: Recruit the trainers and beneficiaries

The track set pre-determined selection criteria and sent it to the NGOs to recruit trainers and end beneficiaries. The concept was to deploy peer-training for sustainability. The Project staff did interview the candidates to get the final list.

MS7: Conduct the TOT

The track trained the info-ladies on: PM, entrepreneurship, Basic IT skills. The project staff evaluated the provided training. The TOT training lasted from September 2014 till January 2015.

MS8: Design the training plan with IMC

The project staff designed the training plan along with the selected provider – IMC- to offer Arjon and Embroidery and sewing to Nasr EL Nuba and Klim to Abou Simble. The training was offered on three consecutive levels for 99 vocational ladies (33 per handicraft) and 24 info-ladies (8 per handicraft).

MS9: Awareness sessions

The info-ladies were guided to develop and conduct community awareness sessions to vocational ladies and other participants on the following topics:

- Reproductive health
- Children nutrition

The info-ladies developed the material and conducted the sessions on their own, another sign of sustainability.



MS9: Encourage Info-ladies to handle e-marketing

The project staff took training from Souk.com and built an e-market place, trained the info-ladies but it did not work for the following reasons:

- Souk.com does not pick up products in cities other than Cairo and Alexandria making it difficult to Nubian ladies to reach them
- Souk.com took 10% out of each sales deal and they sell retail not bulk products. Nubian ladies could not wait since their working capital was very limited.
- Souk.com forms are very hard to fill causing the system to refuse the product



So the track found another solution through social media:

- Created a web page on Kenanaonline portal and create a Facebook page for every handicraft linked to the webpage. The info-ladies are responsible for updating the webpage and Facebook interactions.

4.3 Outcome indicators

Nubia project tried to help the community to save their heritage and present it to the world manifested in lovely functional products reflecting the Nubian unique culture. It promoted the capacities of the ladies and introduced them to the IT world. It enabled them to access resources to improve the economic conditions and continues informal education.

- **Building capacity of the NGOs working in Nubia**

The four NGOs participated in this track were coached by the project staff to develop themselves and expand their scope of services. For example offer IT training using the supplied equipments by the project to them.

Quantitate Indicator: 100% of the interviewed NGOs agreed that they benefited from this project in terms of IT labs, trainers and new production tools such as sewing machines and Nowl (نول)

- **Better usage of Information Technology gadgets**

Info-ladies use e-marketing to promote the products that were produced by the vocational ladies in Nubia, a marketing method that they did not use before this project
Qualitative indicator:

Info ladies: an info lady managed to exhibit Nubian products in a fair in Dubai

Vocational ladies: 50% of the interviewed vocational ladies use social media to promote their products

- **Increasing demand**

A known fact in this track is that info-ladies requested to get the vocational training on handicrafts not only to know the steps but also to produce their own items.

Quantitative indicator:

Info-ladies: Almost 80% of the interviewed info-ladies were trained with their vocational ladies.

Vocational ladies: 30% of the interviewed vocational ladies took more than one training program and requested advanced courses especially in Sewing and Embroidery and bead made accessories

- **Better products lead to local and international exposure**

Some products did reach the local and international markets; this leads us to believe that some designs are more suitable to the target markets.

Not to forget that this track benefited from media coverage in ASWAN and its local channel.

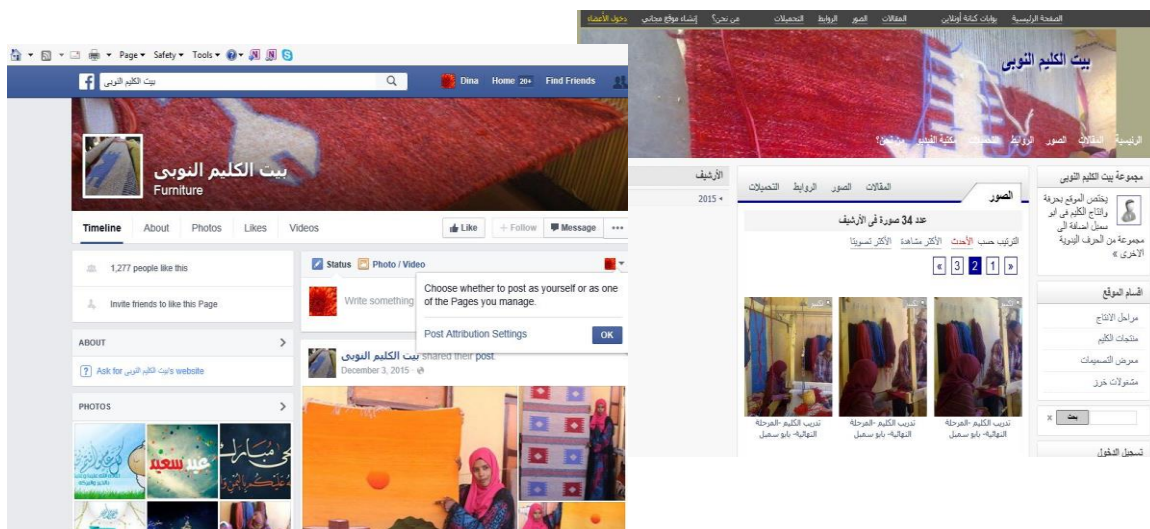
Qualitative indicator: The products of some vocational ladies were presented in an international exhibition in Dubai.



- **Created a tier of professional trainers in Nubia**

The TOT training created a tier of professional trainers that Nubia lacked prior to this training, this tier would service the community and the various NGOs

Quantitative indicator: 100% of the interviewed info-ladies said that they benefited from the basic IT training and around 30% of them trained others



4.4 How has the track brought impacted on the lives of the community at the designated area?

- **Relative improvement to household income**

Despite the absence of baseline data, the participants in depth interviews with vocational ladies reported better household income due to better market accessibility despite the case that market accessibility can be much more improved. Especially that they are producing functional items rather than decorative items.

Quantitative/ Qualitative indicators:

Beneficiaries: 60% of the interviewed beneficiaries agreed that their income increase by 20% after getting the training and working to produce the products

NGO: Misr EL Kair approached one of the NGOs to market their products, another potential source of revenue to the ladies, households and the community.



- **Change the attitude of Nubians**

Nubians use the handicrafts to decorate their homes, now they realized that they can produce more functional items to be sold to other. The sky is the limit to product development using natural raw materials, handmade and unique culture reflection.

Nubian ladies now know how to price their products correctly and so they can negotiate with the buyers accordingly.

Quantitative indicator: 10% of the interviewed vocational ladies expanded their business (swing and embroidery mainly) serving their communities

- **Saving the environment**

Nubians natural raw materials for their handicrafts such as Arjon and natural dyes used in klim. Such practices help to preserve the natural life of Nubia.

Qualitative indicator: Vocational ladies recycle Arjon in producing functional products

- **Exchanging experience among Nubians would enrich the produced products**

Each center in Nubia has its unique characteristics; Nasr El Nuba is more of a touristic center so focusing on klim will enrich their culture and vis-versa.

Quantitative indicators: 80% of the interviewed NGOs requested more training on various traditional handicrafts and suggested to include bead made accessories

- **Empowering the NGOs and trainers**

The NGOs was very satisfied with the capacity building that they got, they are currently serving other NGOs, and they became a hub for other NGOs working in Nubia. They have the needed equipments, training materials and qualified trainers.

Trainers have increased their confidence levels and improved the way they conduct themselves.

Quantitative indicators: 30% of the interviewed trainers managed to give other training programs in the NGOs and worked with other NGOs.

4.5 How sustainable are the ideas and process introduced through the track?

The track has facilitated the recovery of community aspirations through its activities and generated hopes for the future among project participants. Communities have also benefited in the process. Thus, maintaining and sustaining track-initiated activities and facilities were important to the community.

Demand trend indicates the popularity of this track and the fact that the participating NGOs offered their services to other NGOs in Nubia makes it more sustainable model. The trainers are already generating extra revenue form this line of business after receiving the TOT.

The beneficiaries appreciated the opportunities provided by the track. The concept of having an info-lady whom they trust encourage some of them to ask her to be their purchasing department supplying them with raw materials as well as promoting their products.

Case of Nadia Mohamed Othman

She is a housewife and a mother of 3 children that got the training on Arjon and then decided to be more creative and recycle some of the old pieces of clothes or leather to produce functional items such as handbags and wallets made of Arjon and recycle goods. She managed to participate in a handcraft exhibition in Aswan and sold all her production. She created another sources of income helping her family to improving their economic condition. Nadia is a small entrepreneur.

Case of Salma Ahmed

She is a housewife that worked with Arjon and managed to increase her income by 120% as she participated in two exhibitions and managed to sell all her products.

Through interviews and field visits it was found that the trust fund officers took considerable amount of work for the improvement of local attitude and educated the stakeholders about the merits of this track. The stakeholders expressed great enthusiasm about the track achievements and appreciation the Trust Fund officers' assistance with the hope of future cooperation.

4.6 What are the inputs from beneficiaries?

Mrs. Safa Mahgoub an info-lady who managed to sell around 40% of the production of the vocational ladies but mainly depended on networking and not on e-marketing. Mrs. Safa did go to fairs to sell but still needs a permanent well designed showroom to show off the goods located at touristic cites or at target markets.

"استطعت ان اصرف حوالى 40% من اجمالى البضاعة الخاصه بالمنتجات فى مختلف الاماكن معارض واسواق وانترنت وغيره ومعارف. لكن المشكلة لما يكون العرض فى مكان ضيق والكميه كبيره بتخلى الاختيار اصعب وبتخلى القرار اصعب فى الاختيار لكن فى العموم لم يكن هناك انتقادات بخلاف السعر. بعض العملاء طلبوا حاجات خاصه بمقاسات خاصه او اشكال خاصه وده صعب التنفيذ لكن بنحاول نقرب وجهات النظر. بحاول أوصل للعملاء من خلال العلاقات والمعارض والاسواق الللى انا مشتركه فيها والمنتج الجيد بيخلق الزبون بتاعه " صفاء بشير محجوب – رائدة معرفية

The vocational ladies such as Mrs. Zinab Ramadan, expressed their needs for more advanced sewing courses and stated that there is a big demand for sewing courses is Nubia

"اسمى زينب بشتغل فى مجال الخياطة والكروشيه وعرفت شويه حاجات عن الكليم ويعتمد فى دخلي على الكروشيه فقط لان ده الللى انا بعرف اعمله كويس وبقالى كثير بشتغل فيه. محتاجه دوره الخياطة لان الكروشيه شغله محدود ولكن التفصيل فيها صنعه كويسه وهو عليه طلب كثير " زينب رمضان محمد – سيدة منتجة

4.7 Future expansions

With the Same NGO:

- Link the NGOs with a potential exporter or a wholesaler to promote their product to local and international markets
- Link the NGOs with young designers such as Allaga (www.facebook.com/allaga.cairo) to use the Nubian handicrafts of embroidery and sewing in the contemporary designs
- Link them to advertng agencies that can use their products as conference giveaways

With other NGOs in Aswan:

- Work with other associations serving other areas in Aswan to capitalize on the success story and to create a clear impact before rolling on to another governorate. But to avoid creating severe competition promote other handicrafts that could serve the community. There is an abundant vocational training center that can be used.

With CSR projects financed by private business:

- To talk to the private sector with CSR initiative to finance another project to capitalize on the success story and serve underdeveloped areas in Upper Egypt

TO universities:

- Applied arts universities can be very interested to help the Nubian to develop their functional products to a higher level making it more prominent products. The senior students can apply their graduation projects in Nubia.

To donors:

- Organization focused on women empowerment can be very interested in participating in such a project and help them reach international markets.



4.8 Challenges that needs to be addressed

- Not all raw materials are available and the NGOs did not satisfy their role in this matter
- Need professional designers to update the designs to supply the local and international markets with contemporary products capturing the Nubian flavor
- Need more advanced level of klim training to enable them to draw logos as well as shapes
- Need to be linked to potential exporters and local sellers to improve the market accessibility
- The packaging was improved yet it needs more development to suit the international markets. The package might include more than one product for example a klim packed in an embroidered sack

4.9 Lessons Learned

- Depend totally on NGOs and volunteer work to speed the implementation
- Develop a model that guarantee market accessibility to promote the products and create substantial improvement to the household income
- The areas are really far from the cities so the project need to include some sort of transportation element in all its activities
- Infrastructure status especially the internet connectivity is an important challenge
- PR and communication activates should be an integral part of any future project to promote its success and raise awareness. What was done was very limited and could have limited the awareness about this track



5 Evaluation Findings of Remote Tele-Medicine Track

Telemedicine is the delivery of healthcare via telecommunication technologies, it could be as simple as two healthcare professionals discussing a patient using videoconferencing technology or as complex as remote tele-robotic surgery.

The greatest strength of telemedicine is that it can improve access to health services for the underserved communities particularly in the remote regions. Individuals in underserved communities suffer by long trips and expensive journeys to metropolitan hospitals to receive the care they seek. Telemedicine alleviates the need to travel, cutting cost, time and effort by providing quality healthcare at the patient's geographical location; it does not substitute the classic relationship between physicians and patients but adds value and make that relationship richer and more collaborative.

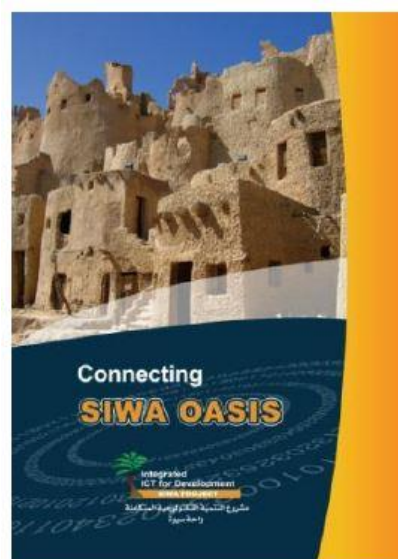
Egypt has a considerable population of highly qualified medical experts however their unbalanced geographical distribution leaves a large portion of the population underserved.

Telemedicine is a complex operation that requires not only technology, but more important an effective working model covering funding, coordination and buy-in of healthcare facilities hosting the telemedicine unit aiming to change the acceptance of beneficiaries to this drastic change .

Pilot study

In 2009 the WHO conducted a study to evaluate the healthcare services provided at SIWA on the back of the high child mortality rate. The study stated that the healthcare services offered in Matroh (the closest facility) was very poor and the parents had to take their child in a trip of 700km to Alexandria to get proper healthcare, which was the main reason behind the high child mortality rate. Accordingly, WHO, UNDP, Trust fund along with Vodafone foundation suggested a solution: “remote consultation services between SIWA central hospital and Shatby University Hospital in Alexandria”. This project faced a key challenge:

- WHO had to work with a facility related to MOH yet this target segments did not depend on this facility due to poor offered services and cultural barrier as they depend more on traditional medicine.



Lessons learned was not about the model it was more about selecting the proper environment hosting the model:

- Need a more open environment
- Work with NGOs instead of MOH facilities
- Develop a sustainable more out of pocket fees (paid by the beneficiaries directly) and avoid free of charge model

5.1 Was the design appropriate?

First decision was where to go?

Trust fund started with three options: Natron Valley, Sinai, and Nubia. They selected Nubia for the following reasons:

- To serve frontier areas suffering from very limited healthcare services
- Nubia was under spot after 2011, so it would be a good case
- Nubians are open mind population, internationally exposed and yet have strong cultural relationships
- Nubian population is around 10% of Aswan's population

To avoid the challenges faced in SIWA and to capitalize on Nubian culture, the track was hosted by an NGO titled (Al Gasem Medical Center - GMC). The GMC was willing to invest which would ensure sustainability. The design of the remote tele-medicine unit was largely flexible. Project leading team was established at GMC for implementation. Training was provided to project staff accordingly.

The track has become increasingly responsive to local needs as evidenced through visits. Project staff considered the concept of peer education (from reference doctor to GP) as an innovative educational approach. Discussions and interviews with participants indicated that beneficiaries were satisfied that their opinions were sought and incorporated in the track design.



5.2 Has the implementation been effective?

The project management mechanism was clearly set out as per the Framework of covering communication; decision-making procedures, report production, record keeping and a feedback mechanism were clearly delineated at each level. Consultant was able to verify that project staff at all levels did adhere to the framework, which has facilitated track management and monitoring.

5.2.1 Effectiveness elements of implementation

▪ Monitoring

The project coordinator provided direct management and monitoring support to head office. Outcome of field visits, reports from the lower levels and other track-related activities were reviewed at the periodical review meetings.

The general components of monitoring for the project implementation included:

- Field visits by the project staff
- Activity reports
- Evaluation of work
- Project mid-term reports

Still to create a more effective monitoring the project staff should:

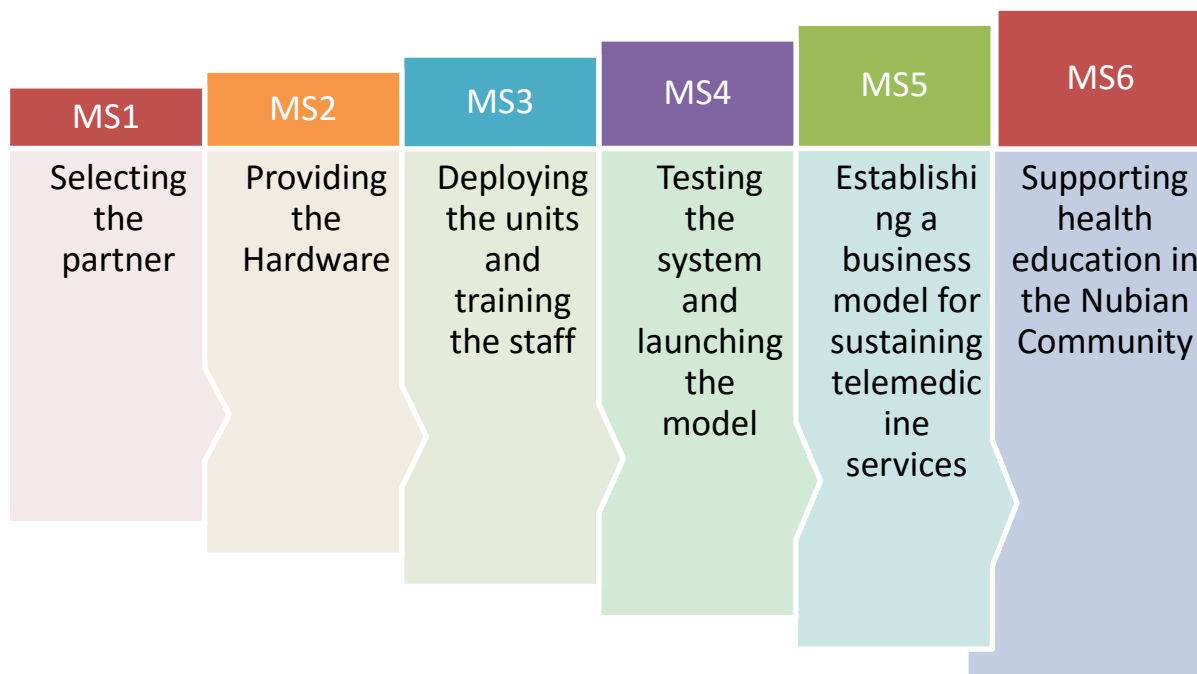
- Depend on external researcher checking the milestones to generate corrective actions
- Create a comprehensive database for the project to avoid any duplication enabling better tracking and longitudinal studies
- Recruit a project advocate working on the grounds to be a closer eye on the project facilitating implementation and integration between various tracks of the projects

▪ Cooperation

In order to provide remote consultation to Nubia the project staff developed MOUs and cooperation protocols with multiple stakeholders to support this track and ensure its sustainability.



5.2.2 Milestones of the main activities



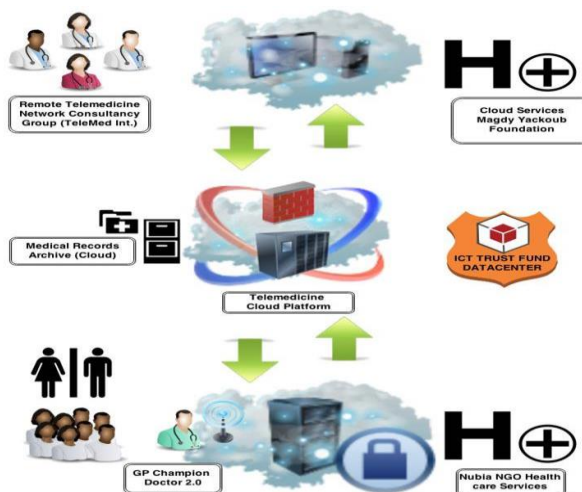
5.2.3 Output indicators

Key objective: Improving the healthcare services by Tele-medicine solutions for the public in Nubia.

We will discuss the effectiveness of implementation along the key milestones of the tele-medicine component's implementation.

MS1: Selecting the NGO partner

A team visited Nubia to compile a list of NGOs providing healthcare services through their registered clinics in Nasr Nubia specifically. To validate this before mentioned list they contacted Egyptian Medical Syndicate – Aswan Office to get their recommended list. They ended up with 10 registered clinics, 5 located in Nasr EL Nuba. Then a technical visit was initiated to visit a short list of 5 NGOs.



The track developed criteria to assess the NGOs covering:

- The traffic at the registered clinic should be high
- Availability of basic medical infrastructure equipments (x-ray, sonar, ..)
- Availability of key human resources
- Believe in the tele-medicine initiative and aim to improve the level of service offered to the Nubian community
- Willing to share the initial establishment costs and future investments along with holding awareness sessions to promote the track

Accordingly the track selected GMC as they serve 3000 patients per months and have 8 different clinics (internal, dental, bones, gynecology, dermatology, ..). They also offer good healthcare services as described by some beneficiaries to be better than the healthcare service offered by MOH facilities in Nasr EL Nuba. GMC was willing to invest in the tele-medicine initiative by hiring an IT specialist and got better Internet packages, which increased their monthly expenses.

Beside the NGO partner, the private sector represented by TeleMed Int. provided the track with the needed HW and other Healthcare institutions such as Cairo University –Kasr AlAiny- and Magdy Yacob foundation



MS2: Providing the Hardware

The track used software level tele-medicine framework instead of depending on hardware connectivity to save cost on multiple levels:

- Less utilization of the bandwidth reducing the cost of internet connectivity
- Used open sources certified codes making it more flexible and easy to include extra nodes without the need to reinvest in new hardware or get more licenses
- Limited the needed hardware to be: HD display screen, HD audio system, computing kit maybe a laptop, cart to put all things together for better mobility. Not to forage the medical hardware gadgets as well such as sonar devise or statoscope.

MS3: Deploying the units and training the staff

The track developed a training manual for the IT specialist and the General Practitioner (GP) and deployed this training successfully, afterwards they conducted community awareness sessions to promote the initiative.



MS4: Testing the system and launching the model

The track went through a series of testing procedures aiming to reach the best solution; they even conducted stress testing for the hardware and software. The best provider in Nasr el Nuba was Orange for 3G and landline to ensure connectivity.

They have been working for past 7 months conducting weakly sessions. The track developed a weakly monitoring mechanism to keep a close eye on the process, documenting the number of cases and even attending the sessions with the reference doctor. The track investigates the feedback of beneficiaries and NGO through oral communication documented in a periodical review report.



MS5: Establishing a business model for sustaining telemedicine services through third parties for sustainability, Nubians were ready to pay extra fees for the remote diagnoses service.

To extend the services to include more specialization, the track contacted other iconic healthcare providers such as:

- 57357 children cancer hospital to allow diagnoses before traveling to Cairo for admission. This would save traveling expenses to the cases that cannot be admitted in the hospital and speed the process for accepted cases
- Magdy Yacoub – Aswan Heart Center to allow diagnoses before traveling to Aswan for admission and speeding the process.
- Cairo university – Kasr EL Ainy hospital
- Red cross

MS6: Supporting health education in the Nubian Community

To help raise awareness in the community of Nubia, the track developed an I-frame and provided it with links of health content providers. Aiming to integrate the health component with other components on Nubia project, the women empowerment component will be responsible for training the women on using this portal. An SMS campaign was sent to announce the portal to the Nubian Community. The I-Frame save the intellectual property and guarantee that the content is continuously updated which helps in sustainability

5.3 Outcome indicators

Nubia project (Tele-medicine Track) provided accessibility to remote consultation to habitats of Nasr El Nuba center and 10 more surrounding villages. It promoted the capacities of the NGO partner (GMC) and the GP. It enabled them to access resources to improve the economic conditions and continues education.

- **Building capacity of the NGOs working in Nubia**

GMC was coached by the project staff to develop itself and expand their scope of services and offer remote consultation setting them apart from their competitors.

Quantitative indicator:

Beneficiaries: 50% of the interviewed beneficiaries considered it to be the best healthcare service provider in Nasr El Nuba

NGO: Two other NGOs are willing to invest to offer the same service

- **Better usage of Information Technology gadgets**

GMC devoted a room for this purpose and GP utilized the IT gadgets in his work for the first time stepping away from the typical methods

Qualitative indicator: GMC prepared and operated from a fully equipped room



- **Acceptance of tele-medicine idea at different levels**

Tele-medicine means delivering with convenience at the patient's geographical location alleviating the need to travel, delivered at the appropriate time with no delay that may cause deterioration in a patient's condition with a qualified specialty doctor, tailoring follow up to individual's needs. This is a perfect formula for a better life quality.

The habitats of Nasr El Nuba center and the surrounding villages accepted receiving the diagnostic through tele-medicine for different specialization

The implementation of tele-medicine track, witnessed a substantive participation by GMC staff and management team. The GP working with GMC accepted the mechanism and saw as an opportunity to increase his knowledge with provides then with Continuous Medical Education for the GPs in Nubia.

Quantitative / Qualitative indicator:

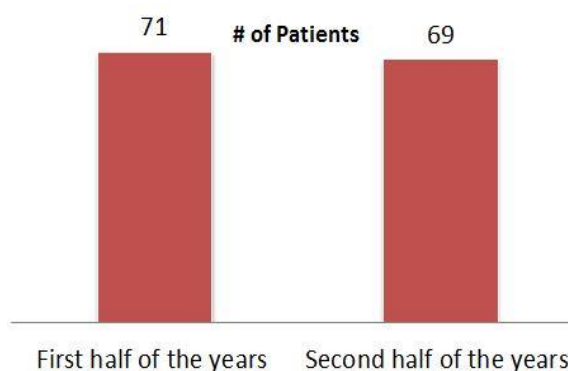
Beneficiaries: 90% of the interviewed sample was satisfied with the level of service they received from GMC

Influencers: Omda of one of villages in Nasr El Nuba and the head of the administrative unit at Nasr El Nuba requested expansion in other various villages and cities of Aswan.

- **Increasing demand**

The numbers of patients is considerable since launching the track. This leads us to believe that it is time to expand this track.

Quantitative indicator: The numbers of patients is considerable since launching the track in spite of Ramadan in July and the internet outage.



- **Raised demand for other specialization via the tele-medicine**

The management team at GMC demanded specialization such as bones and the beneficiaries demand dermatology. They became believers!

Quantitative / Qualitative indicator:

Beneficiaries: 40% of the interviewed sample said that they would re-use the tele-medicine for other specialization.

NGOs: GMC and other two NGOs wanted to expand in other specializations.

- **Better management of the medical cases**

This service will improve the decision making process in managing critical cases and at least provide better stabilization and life-saving measures improving the outcome for these urgent patients in need.

Qualitative indicator:

Reference doctors: More attention to describe the correct analysis and lab tests

- **Patient record archive as a nucleuse for local community database**

The track developed a patient digital records that contains medical history of the patient and all his investigations. This database can be the nucleuse for local community database helping in future medical research.

Qualitative indicator:

Reference doctors: More attention to medical history of the examined case



Date	Remote Area	Patient	Specialist
2015-03-28 - 10:16 AM	NUBIA	attended	أحمد قلاب
2015-03-28 - 10:18 AM	NUBIA	patient	أحمد قلاب
2015-03-28 - 10:34 AM	NUBIA	أحمد الهادي ربيع مسطوي	أحمد قلاب
2015-03-28 - 11:38 AM	NUBIA	صلاح سيد مراني	أحمد قلاب
2015-03-28 - 11:32 PM	NUBIA	عماد عبد العزيز	جندب وشاكس
2015-03-28 - 11:41 PM	NUBIA	عدي محمد عبد الحسي	جندب وشاكس
2015-03-28 - 11:50 PM	NUBIA	عدي محمد عبد	أحمد قلاب

- **On the job learning**

Remote region doctors will acquire on the job skills and knowledge about “real-life-management” of critical cases while being supported and monitored from a-far via reference doctor to secure good patient outcome.

Qualitative indicator:

Reference doctors: The GP improved compared to the beginning of the track

GP doctor: Opportunity to learn more from reference doctors

5.4 How has the track brought impacted on the lives of the community at the designated area?

On the Nubian Community

- **Better economic conditions & savings**

Despite the absence of baseline data, the participants in depth interviews with beneficiaries reported having saved lots of money using tele-medicine track instead of traveling to Aswan or event Cairo to get diagnostic by a reference doctor.

Staff of GMC and the GP generated income as a result of using the skills acquired through track activities, with some participants more successful than others on certain skills.

Quantitative / Qualitative indicator:

Beneficiaries: Estimated the cost of the trip to Assuit to be around 2000 EGP, Aswan 1000 EGP and Cairo 5000-7000 EGP. All are saved if used tele-medicine.

GP + GMC: Since January 2016 they charge 45 EGP for tele-medicine diagnostic above the typical consultation fee, part of this new fee is revenue for the NGO and its staff

- **Change the attitude of Nubians**

The interviews reported the willingness of Nubian to pay extra charge for this service.

Quantitative indicator:

Beneficiaries: Since January 2016 they charge 45 EGP for tele-medicine diagnostic above the typical consultation fee and the beneficiaries are willing to pay more for other specializations.

- **Saving the environment**

Nubians depending on tele-medicine with save the fuel used in transportation and will offer a better life style.

Quantitative indicator:

Beneficiaries: 50% of the interviewed sample does travel to other governorates seeking better medical care. They thought of tele-medicine as a replacement saving the transpiration to very strict cases only

- ***Empowering the GPs and related staff in the Nubia with Top Notch Technologies***

Staff of GMC and GP was very satisfied with the training they got, they felt more connected to the modern world and appreciated the opportunity to learn more.

Participation in this track have increased their confidence levels and improved the way they conduct themselves.

Qualitative indicator:

GP: Better confidence of the GP and his communication improved

- **Local community medical database**

Participating research centers can benefit from the patient record archive in identifying medical protocols suitable for this community.

Patients that have complete data available for more than 5 years would allow for analysis of health over a patient's lifetime and providing a good source of longitudinal data. The size of the databases would allow research on low incidence diseases logistically impossible to study in any other way.

Qualitative indicator:

Reference Doctors: The case history will help in future research

On the way Trust Fund manages similar projects

- **Saving due to using SW level tele-medicine platforms**

Trust Fund has chosen to adopt SW level tele-medicine and not depend on the typical hardware related solutions. They also depended on open-sources software and not on the typical vendors. This formula reduced the cost of this remote consultation unit to 1 over 10 the typical costs. Such interesting finding can help Trust Fund to expand this track by seeking the help of various donors especially CSR projects.

Moreover, the elasticity of SW, were the developer does not need to redo the whole solution to add a new reference or remote site.

Quantitative indicator: This formula reduced the cost of this remote consultation unit to 1 over 10 the typical costs.

- **Becoming an outreach program to iconic healthcare institutions**

Such low effective investment can help iconic healthcare institutions to have their outreach unit at very remote areas either for diagnoses prior to hospital admission, or just a CSR project to promote its activities, and probably a clever way to deliver high quality healthcare services to frontiers

Qualitative indicator: increase the probability to serve other remote areas.

- **Efficiently utilize limited medical staff by complementing medical campaign with tele-medicine**

Trust Fund did a pilot that proved to be very successful by linking the typical medical campaign of Cairo University – Medicine faculty with tele-medicine track, they called it virtual campaign. The assistant to the reference doctor traveled to Nasr El Nuba for two days. He saw the patients and prepared the medical files to the reference doctor. Then used the tele-medicine unit to communicate with the reference doctor and get his final decision as per each case presented.



This virtual campaign managed to diagnose 120 cases in 48 hours using 1 over 40 of the costs of the typical medical campaigns. This technique can help many institutions serve Egyptians all away from the main cities.

Quantitative indicators: Prominent reference doctors diagnosed 260 cases with minimal cost that is less than 10% the actual cost of treating them with reference doctors traveling to Nubia

- **Ability to utilize crowd funding to finance other kit/node at another place**

Such an efficient low cost track could be furtherly utilized to generate finance through crowd funding to implement it at places away from the main cities saving the country lots of unutilized resources and guarantying the participation of the NGOs. The potential areas are Halayeb and Shalateen, SIWA, Dakhla Oasis and Kharga Oasis.

Qualitative indicator: Ability to raise finance through crowd funding

5.5 How sustainable are the ideas and process introduced through the track?

The track has facilitated the recovery of community aspirations through its activities and generated hopes for the future among track participants. Communities have also benefited in the process. Thus, maintaining and sustaining track-initiated activities and facilities were important to the community.

Demand trend indicate the popularity of this track and the fact that beneficiaries pay for the services makes it more sustainable than free of charge model. The interviews with beneficiaries reported their willingness to pay an extra of 40-60 LE above the average doctor visit's cost.

The case of Dr. Mostafa Hamouda

The doctor is a general practitioner that worked as a physician for years in Nuba. Dr. Hamouda admitted that he benefited a lot from this project on the profession side as he worked with experienced reference doctors. He also agreed that this project saved the time and efforts of the patients and offered them high quality healthcare diagnostic service. He was willing to help by finding another GP to substitute him during vacations.



The beneficiaries appreciated the opportunities provided by the track. The concept of having a GP whom they trust in the session made them feel more comfortable and willing to use this technology. Both GMC and the beneficiaries interviewed were appreciative of the track strategies. They said they would continue their best to implement these activities.

Through interviews and field visits it was found that the trust fund officers took considerable amount of work for improvement of local attitude and educated the stakeholders about the merits of this track. They stakeholders expressed great enthusiasm about the track achievements and appreciation for Trust Fund officers' assistance with the hope of future cooperation.

5.6 What are the inputs from beneficiaries?

Mr. Salah Roshdi confirms that the tele-medicine saved him money and is gaining more acceptance in Nubian community

“العلاج مش ببخليني اصرف كل المصاريف ده انا حتى اضطرت استلف علشان اعمل رحله السفر دى للعلاج. الاول مكنتش واثق من هذه الخدمة مكانش عاجب ولادى لكن الان اصبح الامر اسهل بعد ما اتعمم والناس كلها بتستخدمه” صلاح محمد رشدي – مستفيد من التشخيص عن بعد

Mrs. Buthaina confirms that tele-medicine saved he money and effort and helped her take care of a patient that could not travel to see a reference doctor outside Nubia, she also confirmed that they need most specialties in Nubia which confirm the growing demand for such a service.

الميزة الاساسيه في التشخيص عن بعد هي ان التكلفة اقل بكثير من السفر ويعطينا من مشقة الانتقال والمشاكل المصاحبة له وكذلك مناسب في حال تدهور صحة المريض بما لا يمكنه من السفر او لا يستطيع دفع نفقات السفر يعنى خدمه العلاج عن بعد حله الازمه والفلوس معقوله وبيحقق المطلوب من ان دكتور متخصص يكشف ويشخص الحالة المرضية. احنا محتاجين كل التخصصات” بثينة حسب الله – مستفيد من التشخيص عن بعد

The head of the local administrative unit recommended expanding this project to other medical center in other villages within Nasr El Nuba.

محور الصحي نموذجي جدا بيوافر الجهد والسفر خاصة لو مفيش تخصصات واستشاريين في القرى. محور التشخيص عن بعد يمكن تواجده في مستوصف توشكي غرب -مستوصف بلانة- مستوصف مجمع حفصة في قرية غنبيه، احنا هنا في نصر النوبة بنخدم حوالي 42 قرية. في بعض المباني المجهزة يمكن ان تكون من اكبر المراكز الطبية لو يتم الاتفاق مع الوزارة لتجهيزه ليكون مركز رئيسي للتشخيص عن بعد هيكون حاجة كوسة جدا.” محمود عليان ابراهيم رئيس مركز الوحدة المحلية في نصر النوبة

The teacher syndicate is willing to finance teachers getting the diagnostic through tele-medicine solution. They head of the syndicate branch in Nasr EL Nuba estimated the acceptable cost to be around 50-80LE above the typical cost of the ordinary fees.

ممكن النقابة تتعاقد لتلقي خدمة التشخيص عن بعد، شرط ان يقدم المشروع بمستوي اسعار جيد يتناسب مع دخل المعلمين فمثلا احنا ممكن نتكلف الفين جنيهه عشان نسافر اسبوط بالعلاج والتحليل والتشخيص ولو القاهرة بتوصل الي 5 الاف جنيهه لكن في حالة التشخيص عن بعد اعتقد ان المعلمين ممكن الخدمة ترضيهم لو التكلفة الزيادة عن الكشف تتراوح بين الـ 50 الي 80 جنيهه وده وفق التخصص اللي ممن يحتاجه المريض.” محمد توفيق احمد حسنين نقيب المعلمين للنقابة الفرعية بنصر النوبة

5.7 Future expansions

With the Same NGO:

- Serve more than one clinic (internal medicine) and expand in dermatology (first consultation), bones, cardio and immunity diseases
- Use GMC as a base and equip it with a mobile kit to deliver the healthcare service in other areas in Aswan (GMC has an ambulance and branded cars that can be utilized)

With other NGOs in Aswan:

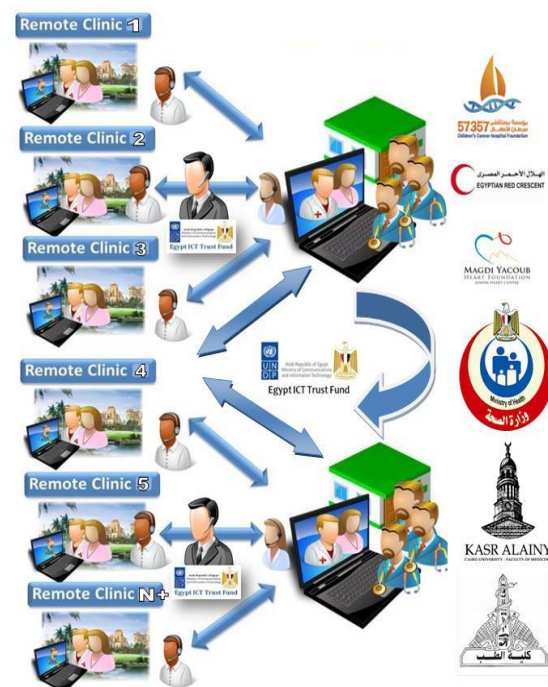
- To form a protocol with Liver Patient Care Association in Aswan since they have the finance to cover diagnostic procedure and medication afterwards since they are part of the national campaign for liver diseases.
- To address other NGOs serving other areas in Aswan to capitalize on the success story and to create a clear impact before rolling on to another governorate

With CSR projects financed by private business:

- To talk to private sector with CSR initiative to finance another node (preferably in Aswan, for example Abu Simble EL Siyahy) to capitalize on the success story and serve underdeveloped areas in Upper Egypt

With Universities:

- To organize a series of virtual campaign with the cooperation of Cairo University – Kasr AlAiny - to different target areas at the frontiers offering multi-specialization to underserved communities in Aswan and upwards



To donors:

- To implement a successful National Egyptian Telemedicine Program that positions Egypt at the cutting edge of healthcare in Africa, Middle East and even globally.
Egyptian health providers will not only have the opportunity to deliver quality health care to the underserved population but they will have the opportunity to outreach to the Nile Basin and other African nations through cross border telemedicine. Some stakeholders are very much interested such as Magdy Yacoob Foundation, UNDP, ...

5.8 Challenges that needs to be addressed

- Need to recruit other GPs or pharmacists that are trusted by their communities as the model depends on them to succeed
- Improve GMC organization and management style to fit the expansion plan
- The areas are really far from the cities so the project need to include some sort of transportation element in all its activities
- Infrastructure status especially the internet connectivity is an important challenge
- PR and communication activates should be an integral part of any future project to promote its success and raise awareness. What was done was very limited and could have limited the awareness about this track
- Create a service level agreement to describe and control the level of service offered
- Automate the process away from human coordination between the node and the reference center
- Need to develop a queuing mechanism away from the human interference to ensure equality
- Need to develop a higher committee to govern and regulate the tele-medicine initiative. This is challenge that can wait for now.

5.9 Lessons Learned

- Depend totally on NGOs and volunteer work and avoid the governmental agencies to speed the implementation
- Develop a model where the beneficiary pay the charge to guarantee its sustainability once the project ends

6 Evaluation Findings of Entrepreneurship/Employability Track

Entrepreneurship is the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit. The most obvious example of entrepreneurship is the starting of new businesses.

The ICT Trust Fund mission included developing the Egyptian workforce through fostering the entrepreneurial mindsets of young Egyptians through developing highly specialized trainings and professional ICT tools for business, hence sharing in solving the national unemployment problem. The program first phase was launched in July 2006, aiming at exploring the current situation of small and medium enterprises and project in Egypt.

Then the ICT Trust Fund focused on building the capacity of M/SMEs by providing IT-based training and services and sought the help of various powerful partners such as the Japanese government. ICT Trust Fund recognizes its responsibility and works toward helping in developing the community and utilizing the youth capabilities.

Pilot study

The “ICT for M/SMEs development program” was launched in June 2006 by the MCIT represented by Egypt ICT TF - with a vision of conquering barriers facing the adoption of ICTs and creating an enabling environment in coping with the national trends for the economic development.

The ICT for M/SMEs program consists of several projects mostly contributing to the development of the SMEs sector in Egypt. Each of these projects shed light on the progress achieved over the program lifetime phases, through mutual cooperation with the program multi-stakeholders.

- The program was initiated in July 2006 with “*ICTs for Micro, Small and Medium Enterprises Development in Egypt, ICT4MSMEs*” a three year pilot research project funded by the International Development Research Centre (IDRC) .
- In August 2008, the second phase of the Program “*ICT Development for Micro, Small and Medium Enterprises in Egypt*” was launched. This was in partnership with Microsoft Unlimited Potential Program
- The program’s third phase started in July 2009 with a project entitled “*Implementation of rural micro, small and medium enterprises services using ICT in Egypt*”. The project resulted in the fruitful partnership with the Islamic Development Bank Group the ICT-TF in cooperation with Microsoft started “*ICT for Youth Employment*”, one year project fosters creating successful entrepreneurial environment through ICT in partnership with Microsoft. The project is intended to address the labor market requirements, Generate job opportunities and promote productivity among youth.

During 2008-2011 the trust worked with SIWA people. Illiteracy heavily affects women living in SIWA. The entrepreneurship/employability track was combined with women empowerment track. The entrepreneurship/employability track was more successful than the women empowerment track in SIWA affected by cultural barriers.

This track faced a key challenge that is only unmarried women do work until they get married then they stop.

Lessons learned were about selecting the proper environment hosting the model:

- Need a more open environment
- Work with more with influencer of the target communities
- Develop a sustainable model
- SIWA shop is a website that was created to promote SIWA's products, was a very successful idea. People of SIWA managed to export products through this website. An interesting marketing tool.

6.1 Was the design appropriate?

First decision was where to go?

Trust fund predefined selection criteria for the entrepreneurship/employability track covering:

- Serving frontier areas suffering from very limited services
- Serving an open minded population, internationally exposed and yet have strong cultural relationships
- Serving big population, Nubian population is around 10% of Aswan's population
- Serving a community that is in need for multiple interventions integrating women empowerment with entrepreneurship

To avoid the challenges faced in SIWA and to capitalize on Nubian culture, the track was hosted by more than one NGO and depended on influencers to promote the idea to the community. The NGOs were selected based on a comprehensive selection process. Training was provided to NGOs' staff to build their capacity before serving the beneficiaries.

The track focused on helping Nubians to work in different economic activities other than tourism to lessen the effect of the tourism crisis and decrease the immigration of their youth.

The track was responsive to local needs as evidenced through visits. Project staff considered the concept of peer training as a good training technique. Discussions and interviews with track participants indicated that beneficiaries were satisfied that their opinions were sought and incorporated in the track design.

6.2 Has the implementation been effective?

The project management mechanism was clearly set out as per the Framework of covering communication; decision-making procedures, report production, record keeping and a feedback mechanism were clearly delineated at each level. Consultant was able to verify that project staff at all levels did adhere to the framework, which has facilitated track management and monitoring.

6.2.1 Effectiveness elements of implementation:

▪ Monitoring

The project management unit at the NGOs provided direct management and monitoring support to head office. Outcome of field visits, reports from the lower levels and other track-related activities were reviewed at the periodical review meetings.

The general components of monitoring for the project implementation included:

- Field visits by the project staff
- Activity reports
- Evaluation of work
- Project mid-term reports



Still to create a more effective monitoring the project staff should:

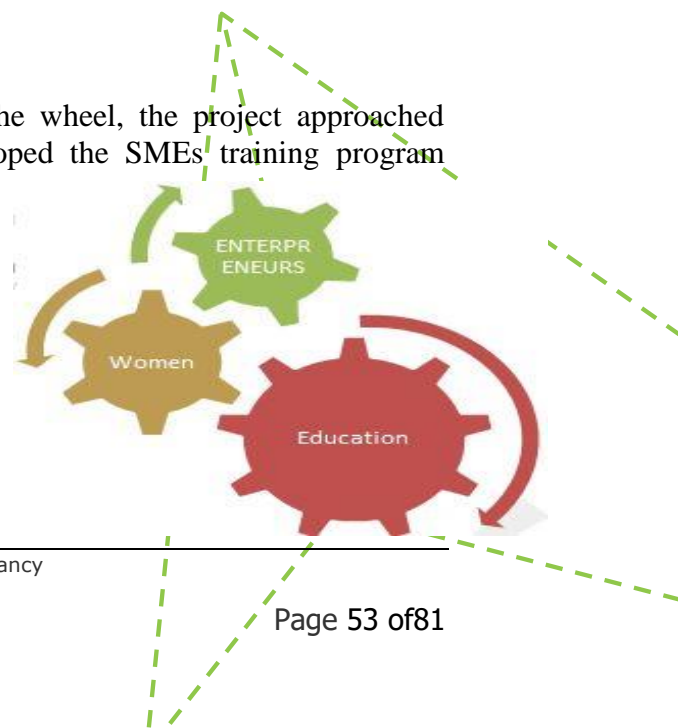
- Depend on external researcher checking the milestones to generate corrective actions
- Create on comprehensive database for the project to avoid any duplication enabling better tracking and longitudinal studies
- Recruit a project advocate working on the grounds to be a closer eye on the project facilitating implementation and integration between various tracks of the projects

▪ Cooperation

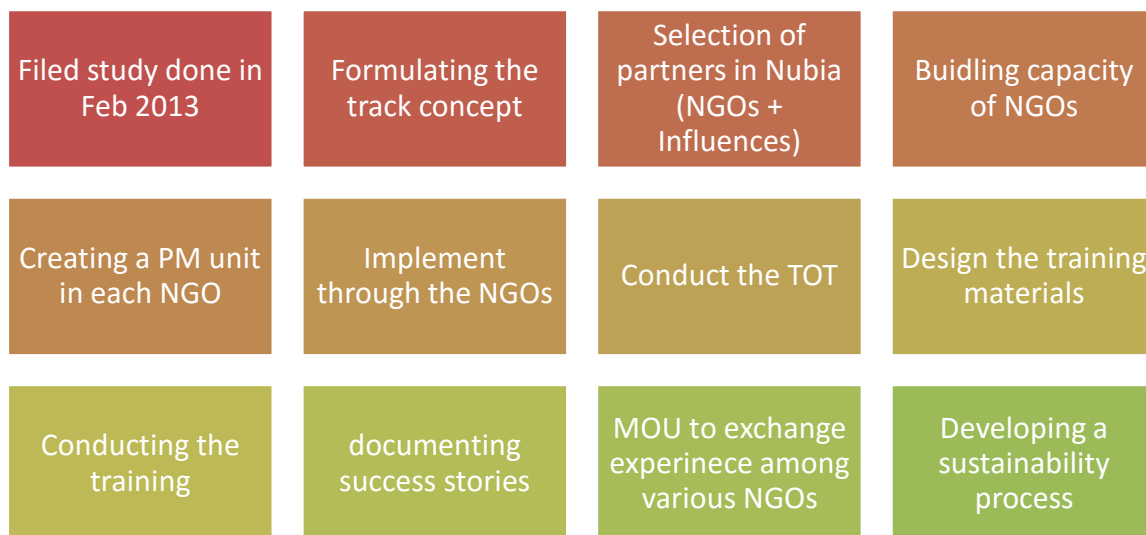
In order to provide the training without reinventing the wheel, the project approached Microsoft for the IT training and project staff developed the SMEs' training program seeking their help with providing training program for the trainers that will train the entrepreneurs later on.

▪ Getting the maximum

Integrating the women empowerment with the entrepreneurship/employability track save resources and generalized the benefit from the individual to the families and to the community.



6.2.2 Milestones of the main activities



6.2.3 Output indicators

Key objective: Increasing self-employment and income generation opportunities through empowering M/SMEs and entrepreneurship among youth in Nubia

We will discuss the effectiveness of implementation along the key milestones of the entrepreneurship/employability track's implementation.

MS1: Filed study done in Feb 2013

The project sent a team of researchers to study the target community in terms of education, healthcare service, role of women, economic activities and the role of SMEs. They covered two main centers since they are high populated areas:

- Abu Simbel – touristic center of ASWAN Center
- Nasr EL Nuba Center that has 44 surrounding villages, the research team took a sample of 6 villages



The study reported the following facts:

- Nubian population is around 300,000 – 350,000 inhabitants
- Illiteracy was not as high as expected in this province
- Women do participate in various economic
- Abou Simbel depended on tourism so it was much more affected with the tourism crisis and they excelled in embroidery and sewing. While Nasr EL Nuba is a more typical sudden community with more diversified economic activities.
- All Nubians believe in solidarity (تكافل) through their associations everywhere.
- The youth go to universities located at nearby cities due to low income levels which explain why some professions are missing.
- The solar phenomena in Abou Simble temple is a national day in Nubia

MS2: Formulating the track concept

Based on the detailed scan, the track was formulated to increase self-employment and income generation opportunities through empowering M/SMEs and entrepreneurship among youth in Nubia.



MS3: Selecting the NGOs and Influencers

The market scan identified the influencers that the Nubian community agrees upon and the NGOs that are active in Nasr EL Nuba and Abou Simbel –touristic. Interviews were conducted with those candidates, around 30 names compiled through market scan or provided by the representative of the Egyptian Teachers Syndicate in ASWAN. The interviews refined the list to 15 contacts.

MS4: Building capacity of NGOs

The project staff held a meeting with the candidate NGOs to build their capacity by giving them forms and templates needed for this track. Also gave them a task to evaluate their readiness and responsiveness. Only four NGOs were really interested in this track.

MS5: Created a PM unit in each NGO

The project decided to create a Project Management (PM) unit in each NGO to help manage the track and provided monitoring data.

MS6: Recruit the trainers and beneficiaries

The track set pre-determined selection criteria and sent it to the NGOs to recruit trainers and end beneficiaries. The concept deployed peer-training for sustainability. The Project staff did interviews to validate the candidates and get the final list

MS7: Conduct the TOT

The track trained the trainers on: PM, entrepreneurship, Basic IT skills. The project staff evaluated the provided training. The TOT training lasted from September 2014 till January 2015.

MS8: Design the training plan

The project staff designed the training plan to offer training for entrepreneurs with creative ideas and already existing SMEs. The project staff validated the list of potential trainees (entrepreneurs and SME owners) provided by the NGOs against the pre-determined criteria

MS9: Conducting the training

The training was delivered to 300 selected trainees on PM, entrepreneurship, Basic IT skills. The project staff did post-training evaluation to assess the effectiveness of the training programs. A second round finished by February 2016 making the number of trainees to reach 400 individuals.

MS9: Documenting success stories

The project staff documented the success stories of various projects benefited from this track. This documentation is the one of the sources for e-marketing portal.

The project also encouraged the entrepreneurs and SME owners to create their own pages on social media and internet.



MS10: Developing a sustainability mechanism

The project staff encouraged cooperation between the various NGOs and the various trainers through an MOU of cooperation. This cooperation succeeded.

The project staff linked the NGOs to Misr EL Khair to promote their products and build their capacities.

The project staff offered links for mini-feasibility studies to help the entrepreneurs create their feasibility studies and approach financiers

6.4 Outcome indicators

Nubia project tried to increasing self-employment and income generation opportunities through empowering M/SMEs and entrepreneurship among youth in Nubia.

- **Building capacity of the NGOs working in Nubia**

The four NGOs participated in this track were coached by the project staff to develop themselves and expand their scope of services. For example offer IT training using the supplied equipments and training materials by the project to them.

Quantitate Indicator: 100% of interviewed NGOs agreed that they benefited from this project in terms of IT labs and trainers

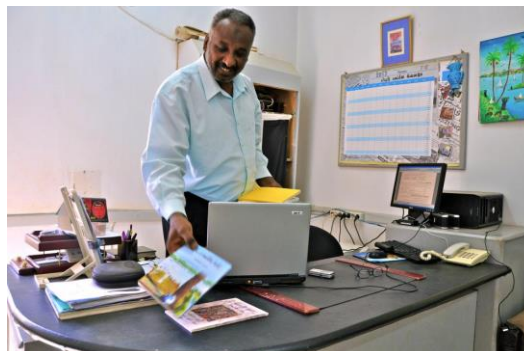


- **Better usage of Information Technology gadgets**

Using e-marketing to promote the Nubian produced products, a marketing method that they did not use before this track

Quantitative indicator:

Beneficiaries: 20% of the interviewed sample did not have a computer before the training and bought one after it. 30% do use social media to promote their products.
Trainers: 100% of the interviewed sample used the IT gadgets much more after the training.



- **Increasing demand**

An NGO (جمعية تحفيظ القرآن) requested to participate in entrepreneurship/employability track and offer other services if possible. This increasing demand proves the success and report the appetite of the NGOs for more development

Qualitative indicator:

NGO: Another NGO requested to participate in entrepreneurship/employability track.

Omda of one of Nasr Nuba villages: Request expansion in entrepreneurship/employability track in other NGOs that were not part of this project

- **Created a tier of professional trainers in Nubia – creating business mentors**

The TOT training created a tier of professional trainers that Nubia lacked prior to this training, this tier would service the community and the various NGOs. Those professional trainers working with entrepreneurs and SMEs became business mentors to them in management issues.

Qualitative indicator: Many of the interviewed trainers offered more programs through their NGOs and one trainer is working with another two NGOs

6.4 How has the track brought impacted on the lives of the community at the designated area?

- **Relative improvement to household income through SMEs and entrepreneurs**

Despite the absence of baseline data, the participants in depth interviews with entrepreneurs and SME owners reported better household income and with better market accessibility this can improvement can be substantial.

Misr EL Kair approached one of the NGOs to market their products, another potential source of revenue to the households and the community.

Quantitative / Qualitative indicator:

NGO: offered other training courses to more Nubians

Trainers: 70% of the interviewed trainers had a 10-30% income increase due to the training they received

Beneficiaries: 20% of the interviewed sample had a 20-30% income increase due to this track and one got 70% income increase

▪ **Change the attitude of Nubians**

Entrepreneurs and SME owners can manage their projects in a more scientific way with automated business models (accounting using excel + e-marketing). This is a drastic shift in the way they used to do business. They even used tele-conference in the providing training with experts in Cairo and attendees in Nubia.

Quantitative / Qualitative indicator:

NGO: Conducted an online training

Beneficiaries: 30% of the interviewed sample did expand their projects and 5% of the interviewed sample is in the process of establishing their own business

▪ **Integration between more than track enhances the impact**

Integration between women empowerment track, entrepreneurship/employability track and education track maximizes the benefits and saves resources and touches the lives of Nubians on multi levels.

Qualitative indicator: a lady is selling Nubian handicraft through social media to other villages in Aswan

▪ **Empowering the NGOs and trainers**

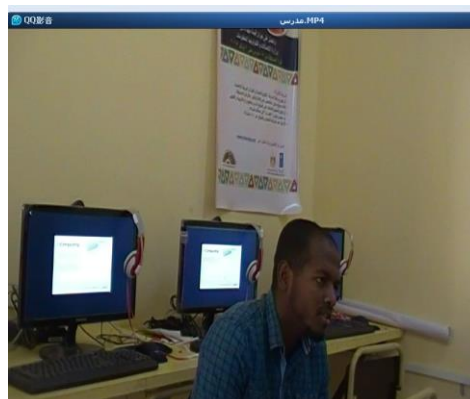
The NGOs was very satisfied with the building capacity that they got, they are currently serving other NGOs, and they became a hub for other NGOs. They have the needed equipments, training materials and qualified trainers.

Trainers have increased their confidence levels and improved the way they conduct themselves.

Quantitative indicator:

Trainers: 50% of the interviewed sample requested more training programs

NGOs: 100% of the interviewed sample wanted to expand in IT labs and training programs



6.5 How sustainable are the ideas and process introduced through the track?

The track has facilitated the recovery of community aspirations through its activities and generated hopes for the future among track participants. Communities have also benefited in the process. Thus, maintaining and sustaining track-initiated activities and facilities were important to the community.

Demand trend indicate the popularity of this track and the fact that the participating NGOs offered their services to other NGOs in Nubia makes it a more sustainable model. The trainers are already generating extra revenue form this line of business after receiving the TOT.

The beneficiaries appreciated the opportunities provided by the track. The concept of having a mentor (trainer) whom they trust encourages some of them to come back to him for more advice.

Case of Nasra Ahmed Dawood

Nasra is a housewife of 4 children got the entrepreneurship training and started selling perfumes from her home with a very small working capital, in no time Nasra expanded her business and started selling detergents as well. She generated an extra source of income helping her family and herself.

Case of Ahmed Mostafa

Ahmed took TOT and trained around 120 Nubian who became trainers giving various courses. He assured us that his income increased by around 40% and he wants to be trained on other topics and much more advanced computer courses.



Through interviews and field visits it was found that the trust fund officers took considerable amount of work for improvement of the local attitude and educated the stakeholders about the merits of this track. They stakeholders expressed great enthusiasm about the track achievements and appreciation for Trust Fund officers' assistance with the hope of future cooperation.

6.6 What are the inputs from beneficiaries?

Mr. Mohamed Lokman is an IT trainer who admits benefiting from the training he got and then worked in training the beneficiaries of employability track and how this added around 20-25% to his actual income.

اسمى محمد لقمان بشتغل مدرس حاسب الى بشتغل فى تدريب وتاهيل الافراد فى المجال الالكتروني الخاص بالكمبيوتر. الجمعيه فادتنى لكن اللى فادنى اكثر هو البرنامج مع وزاره الاتصالات المختص بتدريب المستفيدين من محور المشروعات الصغيرة، وخالنى احصل على عائد اكبر. أنا محتاج دورات فى مجال البرمجه علشان تخلىنى ادى كورسات اكبر واكثر وهتخلينى اخرج كمان من مجرد المحافظه اللى انا فيها. كورسات البرمجة مش مكلفه ، تخيلي هيكلف الخمس الاف جنيه وهيزود دخلى شهريا حوالى 20 الى 25% على الاقل" محمد لقمان – مدرب

The head of the local administrative unit admitted that this track was very useful and he suggested introducing other project such as wooded handicrafts.

ومحور المشروعات الصغيرة استطاع تقديم دورات جيدة، ولازم في الفترة المقبلة نركز علي مشروعات المنتجات الخشبية والمشغولات اليدوية النوبية التي يتم طلبها بكثرة من خلال المعارض والبازارات السياحية." محمود عليان ابراهيم رئيس مركز الوحدة المحلية في نصر النوبة

The Oumda of a Nubian village suggested expanding this track to other Nubia village and suggested introducing new traditional handicrafts

"اللى بيستفيد في المشروع ده السيدات بالدرجة الاول ...في قري ممكن تبدأو منها زي كشتمة في منطقة الدكة ودهميت، فالقري دي محتاج حد يساعدها .واكثر محور انا شايفه مهم هو تصنيع العقود من الخرز اللى ببيعوها الي السواح وبيجيب دخل كويس" عبد الرحيم احمد عبد الغني يحي العمدة لقرية الأمير كاب

6.7 Future expansions

With the Same NGO:

- Upgrade the NGOs to become eligible to get finance and re-offer it to Nubian entrepreneurs through the SFD. Link them to SFD and Central Bank of Egypt (SME unit) to provide training to entrepreneurs and SME owners
- Link the NGOs with entities such as Misr EL Khair to promote their products and help the entrepreneurs access the market and get finance
- Link them to advertising agencies that can use their products as conference giveaways

With other NGOs in Aswan:

- Work with other NGOs serving other areas in Aswan to capitalize on the success story and to create a clear impact before rolling on to another governorate. But to avoid creating severe competition promote other services that could serve the community. There is an abundant vocational training center that can be used.

With CSR projects financed by private business:

- To talk to private sector with CSR initiative to finance another project to capitalize on the success story and serve underdeveloped areas in Upper Egypt

To donors:

- To work with organization focused on entrepreneurship and employability can be very interested in participating in such a track and help them reach international markets.



6.8 Challenges that needs to be addressed

- Higher levels of training are needed to transfer them to become very professional entrepreneurs
- The gap between the training and the implementation must be bridged

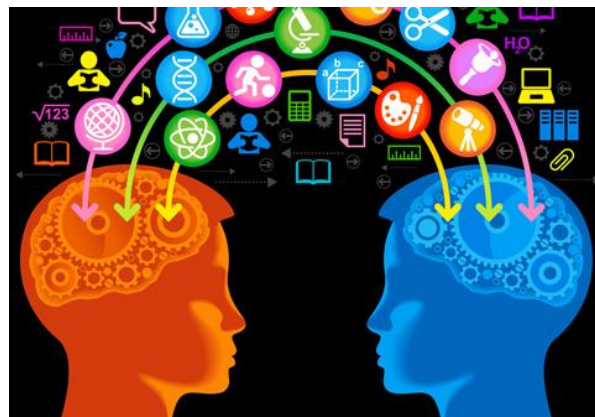
6.9 Lessons Learned

- Depend totally on NGOs and volunteer work to speed the implementation
- Develop a model that guarantee market access to promote the products and create substantial improvement to the household income
- Need access to finance badly, this is the major road block

7 Evaluation Findings of Education Track

The traditional “chalk and talk” method of teaching that’s persisted for hundreds of years is now acquiring inferior results when compared with the more modern and revolutionary teaching methods that are available for use in schools today.

With the advancement of digital tools, the practice of digital storytelling has become prevalent. It is a vital tool that will help keep students engaged. Teachers and students will reap many benefits when digital storytelling is implemented into lesson plans.



This is an exploratory study

Previous experience of Trust fund in education always focused on providing infrastructure aiming to create smart schools everywhere in Egypt complemented with limited training for teachers and school management staff on basic IT skills. These projects were supported by international suppliers such as IBM and Intel. A similar project was implemented in SIWA during 2008-2011. But the concept of Digital Storytelling was first to be introduced in Nubia as part of the integrated intervention in the Nubian community.

7.1 Was the design appropriate?

First time implementation

This is an exploratory track that was implemented for the first time in Nubia. It faced some challenges:

- Internet was very slow and faced many outages
- IT labs in Nubia were not well equipped nor utilized properly
- Teachers did not appreciate getting the training after working hours especially during the afternoon 2-4 pm since it is their time for a siesta according to their traditions
- Teachers limited income prevented them from having electronic gadgets such as laptops or iPads, so they could not practice at home
- The training locations were far away from some of the trainees and so was the IT labs explaining the limited produced digital storytelling movies
- Teachers were extremely occupied during the terms (school year)
- The track avoided coordination with the Ministry of Education making it difficult for some teachers to attend and explains the high dropout rate

To avoid the challenges faced in Nubia, the track might consider separating the production of movies from using them and focus on training the teachers to use the movies offline to avoid the internet outage. A thought that will be discussed later in this section.

The track was not clear in terms of components and tools to be used till after a year of its startup (by April 2014) making previous communication before that date very confused and inefficient. This is a pilot study for future projects.

We can conclude that the design of the track needed more attention and was not carefully fitting the needs of this community.

7.2 Has the implementation been effective?

The project management mechanism was clearly set out as per the Framework of covering line of communication; decision-making procedures, report production, record keeping and a feedback mechanism were clearly delineated at each level. Consultant was able to verify that project staff at all levels did adhere to the framework, which has facilitated track management and monitoring.

7.2.1 Effectiveness elements of implementation:

▪ Monitoring

The project management unit at the NGOs provided direct management and monitoring support to head office. Outcome of field visits, reports from the lower levels and other track-related activities were reviewed at the periodical review meetings.

The general components of monitoring for the project implementation included:

- Field visits by the project staff
- Activity reports
- Evaluation of work
- Project mid-term reports

Still to create a more effective monitoring the project staff should:

- Depend on external researcher checking the milestones to generate corrective actions
- Create on comprehensive database for the project to avoid any duplication enabling better tracking and longitudinal studies
- Recruit a project advocate working on the grounds to be a closer eye on the project facilitating implementation and integration between various tracks of the projects

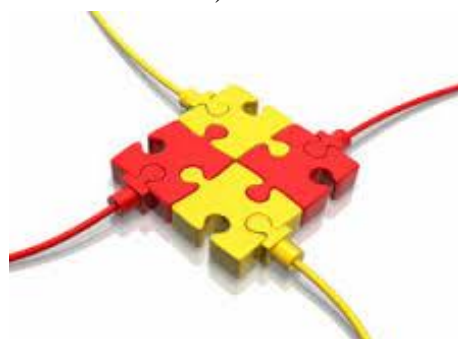


▪ Cooperation

In order to provide the training the project staff approached ELCC to develop the training for digital storytelling and cooperated with Nafham (<http://www.nafham.com/>) and Tahrir Academy (<http://tahriracademy.org/>) by adding their links to the EduNuba portal saving their intellectual property and maintains an updated content.

▪ Integrated training techniques

This track used face-to-face training and complementing it with on-line training as well. Also this track considered some interested attendees in the city of Aswan trying to reach out to other center in the governorate of Aswan beside the targeted centers.



▪ Responsiveness to challenges

The staff kept a closer look at this track through filed visits and tele-surveys and amended the milestones of the track according to the received response and challenges facing the track.

7.2.2 Milestones of the main activities



7.2.3 Output indicators

Key objective: Enhancing informal education and capacity building services for different target groups of Nubian community

We will discuss the effectiveness of implementation along the key milestones of the women empowerment track's implementation.

MS1: Field study done in Feb 2013

The project sent a team of researchers to study the target community in terms of education, healthcare service, role of women, economic activities and the role of SMEs. They covered two main centers since they are high populated areas:

- Abu Simbel – touristic center of ASWAN Center
- Nasr EL Nuba Center that has 44 surrounding villages, the research team took a sample of 6 villages



The study reported the following facts:

- Nubian population is around 300,000 – 350,000 inhabitants
- Illiteracy was not as high as expected in this province
- Women worked in various economic activities such as, raising poultry and handicrafts
- Abou Simbel depended on tourism so it was much more affected with the tourism crisis and they excelled in embroidery and sewing. While Nasr EL Nuba is a more typical sudden community with more diversified economic activities. Nasr EL Nuba is more known for Klim and Arjon handicrafts.
- All Nubians believe in solidarity (تكافل) through their associations everywhere.
- The youth go to universities located at nearby cities due to low income levels which explain why some professions are missing.
- The solar phenomena in Abou Simble temple is a national day in Nubia

MS2: Formulating the track concept

Based on the detailed scan, the track was formulated to promote informal and continuing education and capacity building services for different target groups of Nubian community focusing on teachers and students in the preparatory and high school stages.

MS3: Selecting the NGOs and Influencers

The market scan identified the influencers that the Nubian community agrees upon and the NGOs that are active in Nasr EL Nuba and Abou Simbel –touristic. Interviews were conducted with those candidates, around 30 names compiled through market scan or provided by the representative of the Egyptian Teachers Syndicate in ASWAN. The interviews refined the list to 15 contacts. The project staff held meetings in December 2013 with the candidate NGOs and two NGOs was selected.



MS4: Awareness sessions at Teacher Syndicate in ASWAN in 28-30 Dec 2013

The project staff held an awareness session at the Teacher Syndicate in ASWAN to promote the track and its objectives to teachers in governorate of ASWAN and got their feedback that was incorporated in the track description.

MS5: Working with ELCC to develop the training

The project staff worked with ELCC during March – Nov 2014 to develop the digital storytelling training program. The project staff developed the portal and enriched the content of the e-library of Egyptian Teacher through Kenanonline platform.

The track capitalized on the experience of specialized websites and companies in creating a specialized e-learning library for Nuba educational portal by creating an I-frame (within EduNuba: <http://www.edunuba.com/>) to offer the knowledge and yet preserve the intellectual property of various entities. In this domain they cooperated with Nafham (<http://www.nafham.com/>) and Tahrir Academy (<http://tahriracademy.org/>) by adding their links to the EduNuba portal saving their intellectual property and maintaining an updated content.

The project staff worked on developing 3 CD training kits for:

- Writing skills
- E-marketing by social media
- Course lab Tutorial to create e-learning lessons online

These CDs were distributed later to various members of the Nubian community to generate awareness and encourage e-learning.

In the meantime, a team of researcher held meeting with potential teachers to refine the list of attendees during first week of September 2014

MS6: Implementing the training

The project staff implemented the digital storytelling and online knowledge management training program during 9-18 November 2014 on 3 groups for a total of 57 teachers. The program faced challenges such as:

- Electricity outage
- Training location was far away
- Insufficient number of equipments as some sessions were held at school labs not at the NGO labs

The result was below expectation, the teachers worked in groups producing 8 lessons instead of producing 58 lessons (i.e. lesson per teacher).

The online knowledge management was briefly discussed and the trainer left a tutorial on a CD for the trainees to implement.

The project staff followed up with the teachers and tried to encourage them to develop at least one more lesson per teacher to get certified but the response was minimal.

MS7: Refresh the training & online training

The project staff decided in April 2014 to go back for a 10 days refresh course at Nasr EL Nuba and depended on IT labs at the NGOs participating in this track for guarantee better equipments. This training was more of a practical training to motivate the teachers to develop more movies. The response was better around 28 movies were developed out of 15 teachers who did attend (37 teachers confirmed attending but only 15 did actually attend the refresh course)

For Abou Simble another technique was used, online training. The method was acceptable yet due to technical issue related to the IT infrastructure, the movies were not finished but the attendees designed its components.

MS8: Reaching out to the demand in the Capital of the governorate

The project staff discussed the reasons behind the reluctance of teachers to participate in this track and found the following reasons:

- Some teachers were not convinced with the idea and did not see direct benefit for them that could increase their income
- NGOs participating in this track were not ready for such a project so they could not fulfill their roles and accordingly did not promote the track properly

To maximize the benefit from this novel idea, the project staff contacted some teachers who did attend the awareness sessions at the Teachers Syndicate and decided to hold a training program for 15 teachers at Aswan some of them are originally from Nubia. This program was a great success.

MS9: Follow up to develop websites

The project staff followed up with the teachers to develop their own website and develop more digital storytelling lessons / movies, but the response was limited. It is important to say that the unique contributions were from teachers of Aswan and not Nubia!

MS10: Awareness session with students

10 awareness sessions were conducted with 580 students along with and Enjaz Misr on how to use online resources and create their own website along with some entrepreneurial basic concepts.

Indicator: limited traffic on Kenenaonline website indicate the limited effect of these awareness sessions

4.3 Outcome indicators

Nubia project tried to help the community to build awareness regarding e-learning and self-learning concepts in the Nubian community starting with teachers and investing in young Nubians

- **Building capacity of the NGOs working in Nubia nevertheless their did not perform their role properly**

The NGOs lacked connection with Ministry of Education, failed to promote the track to the target segments, and did not properly coordinate the activities. It is an exploratory trial

Qualitative indicator: The two NGOs participated in this track lacked experience in this track and so they did not fulfill their roles as expected.

- **IT labs at NGOs**

The IT labs that were installed at the NGOs will benefit the Nubia community and enable its youth to connect with the external world easily. NGOs can benefit from these IT labs to generate business.

Qualitative indicators: 100% of the interviewed sample of NGOs had proper IT labs and internet connection



- **Saving time and money and guaranteeing sustainability of updated content by using the I-frame**
Capitalized on the success of other entities and saved effort by creating an I-frame to offer important links to Nubian while saving the intellectual property of the founders of these websites such as Nafham and Tahrir Academy. This approach save the time, money and transportation offering Nubian the opportunity to learn at their own convince.
Qualitative indicators: Established the I-frame: <http://www.edunuba.com/>
- **Negative outcome: Teacher were not convinced**
Teachers did not see personal benefit such as increasing their income or status in the society that could motivate them to embrace this track
Quantitative indicator: 70% of the interviewed sample of teachers was not convinced with this approach unless the Ministry of Education endorses it
- **Negative outcome: Focused on typical education but not vocational education**
This approach might be more useful it if focused on vocational training rather than typical education. Vocational training movies even can be used for training entrepreneurs
Quantitative indicator: 43% of the interviewed sample of teachers was convinced that it might be more useful with vocational education of primary education
- **Negative outcome: Design is far too sophisticated for this culture, this is a known fact**
This approach was too sophisticated for Nubia, it might be better for a more developed community such as the Greater Cairo. The Teacher might be better equipped and the students might be more recipient for the idea.
Qualitative indicator: one of the best movies was produced by teachers who live in Aswan!

7.4 How has the track brought impacted on the lives of the community at the designated area?

- **Provided the NGOs with some exposure to this track that will prove to be very important in the near future with other projects**
The NGOs was very willing to improve their capabilities and they will be better equipped for future projects in the field of education.
Qualitative indicator: This is the first time the NGOs tackle this track, it is an exploratory mission

- **Change the attitude to use the materials in Nubia and to develop it in Aswan**
The teachers of Aswan were more willing to develop the digital storytelling movies and learn more sophisticated techniques while teacher in Nubia were more willing to use such materials since it will save them time and effort of preparing their lessons.
Qualitative indicator: Mohamed Fouad Anwar & Amina Morgan
- **Exposure to online training**
The NGOs were exposed to use online training and found it very useful to the extent that it used it in Quran memorizations (تحيّظ القرآن)
Qualitative indicator: Two NGOs managed to use online training to facilitate testing the student of Quran memorization to get the certificate from Madina Monawara

7.5 How sustainable are the ideas and process introduced through the track?

This track faced serious challenges limiting its sustainability in its current form. Demand trend indicates the unpopularity of this track in this format, and the fact that NGOS never worked in education track before hindered its success.

Some beneficiaries located in Aswan (the developed community) did appreciate the opportunities provided by the track unlike teacher in Nubia that felt that this track wasted their time.

The case of Mohmoud Gamal Abd El Naser

He did create a website for himself explaining the basic concepts of computer and IT using storytelling technique. He confirms that he did not gain money from it directly but it helped him to be famous as he has 300 followers now.



Through interviews and field visits it was found that the trust fund officers took considerable amount of work for the improvement of local attitude and educated the stakeholders about the merits of this track. Despite this effort the track concept needs drastic amendments

7.6 What are the inputs from beneficiaries?

Some students (mainly in High school) got facilitated with the e-marketing and the virtual world and even developed themselves on their own.

"استفدت كثير خلاني اعرف اتعامل مع الكمبيوتر والانترنت وبقي عندي جرأة وانا بس كنت عايز البدايه ودخلت بعد كده اكثر واكثر حتى تعمقت في الانترنت. انا دخلت مسابقه عن البرمجه والتسويق الاليكترونى وكمان مسابقات عن السوفت وير مع انتل وكمان بعرف اسوق في مجالات مختلفه زى مثلا سوق دوت كوم واو اكس ال وجوميا وعايز دورات عن التسويق الاليكترونى علشان اعرف مواقع اكثر وفرص اكبر" الطالب محمد خالد ابراهيم – طالب

Two NGOs managed to use online training to facilitate testing the student of Quran memorization to get the certificate from Madina Monawara.

"استطاعت جمعية التكافل الاجتماعي وكفالة اليتيم بالامبركاب تطوير نظام التدريب عن بعد الذي تم استخدامه مع المدرسين عن طريق برنامج with IQ، وذلك في تنفيذ اختبارات مسابقة للطلاب لحفظ القرآن الكريم من هيئة تحفيظ القرآن بالمسجد النبوي الشريف بالمدينة المنورة، للحصول على اجازة حفظ القرآن لهؤلاء الطلاب، الامر الذي ساعد على توفير تكاليف الانتقال والجدد والوقت المستهلكين في الانتقال بالطلاب من مكان الى مكان، وكان لذلك ابلغ الاثر في نقل ثقافة استخدام التطبيقات التكنولوجية ورفع قدرات العاملين بالجمعية ونشر مفهوم استخدام تلك التطبيقات بشكل عملي أمام الطلاب من حفظة القرآن.

The head of the local administrative unit preferred to have a protocol with the Ministry of education governing this track and facilitating its implementation.



" كنت اتمني ان المشروعات دي تتم ببرتوكول تعاون مع وزارة التعليم ووزارة الاتصالات في مشروعات التعليم بنظام القصص المصورة علشان يتم تطبيقه بسهولة علي الطلاب وتطوير المعامل الكمبيوتر في كافة المنطقة" محمود عليان ابراهيم رئيس مركز الوحدة المحلية في نصر النوبة

Feedback for future expansions:

in elementary schools

- A teacher suggested using digital story telling technique with elementary schools.

• "التدريب كان مفيداً علمياً بس مش مفيد في المجال بتاعى مثلاً زى التعليم الفني الزراعى لأن الأفلام ممكن توثق تاريخياً لكن مينفعش اشرح بيها حاجه علميه اصلاً أما الأفلام الوثائقيه فتتناسب التعليم الابتدائى مثلاً." نورا خالد زين الدين

in vocational education

- The syndicate of the teachers confirmed that digital story telling might be useful for vocational education and that he believes that separating content preparation and usage might be useful as well.

• أسلوب القصص المصورة من الممكن أن يكون مفيد في التعليم الفني، لأن المدارس الفنية مبنية علي اساس العملي مش النظري فالتالي الافضل ليها هذا النوع من التعليم. ومن الممكن ان تتوافر الافلام على بوابة النوبة ليستعملها المدرس دون ان يصممها بس لازم ننشر الوعي عن تلك المواقع وهنلاقي حوالي 50% من بيوتنا فيها انترنت بالاضافة الي معامل الكمبيوتر في الجمعيات الاهلية. " محمد توفيق احمد حسنين نقيب المعلمين للنقابة الفرعية بنصر النوبة

7.7 Future expansions

▪ *Separate content creation from delivery*

To create a partnership with colleges of Education to use the students' successful graduation projects as materials for this track. The graduation projects use different education methods and judged by educational experts.

This will provide content for the e-library that teachers can use later on.

Develop contest among various teachers through Teachers' syndicate to develop content for this e-library.

Focus the intervention on training the teacher to use these sources using online training to save money and create maximum impact.

Also send notification to the registered teachers on their mobiles for any updates.

▪ **Find a way to work offline**

If the internet outage is a serious issue in Nubia, need to develop an offline version suitable for less developed cities

- **Consider this track in more developed cities**
Consider implementing this track in more developed centers in coordination with the Ministry of education
- **Create a forum for Nubia**
Join teacher and students in one forum to exchange ideas allowing community dialogue.
- ***CSR initiatives to finance IT labs at the NGOs***
Talk to private sector with CSR initiative to finance to equip the NGOs with IT labs to spread the usage of IT in the Nubian community
- **Consider vocational training**
Consider to incorporate the vocational education and training in the future versions of this track. Use materials that was developed for Mubarak-Kole schools

7.8 Challenges that needs to be addressed

- Internet and electricity outage
- No impact on the teachers' income to motivate him to participate in this track, this means we need to make them see the benefit
- Need to coordinate with the Ministry of Education, yet keep working with NGOs

7.9 Lessons Learned

- Depend on NGOs but incorporate Ministry of Education and Teachers Syndicate
- Separate content development from delivery and focus on training teachers on delivery promoting that it will guarantee students' engagement and will save teachers time to prepare the lessons



Important note:

This multi intervention project included 5 tracks, four of them were detailed above and the last one (which is actually the first one mentioned in the project framework) focused on enhancing the role of Civil Society Organizations (CSOs) in developing the Nubian community and promoting community participation as a means for community development. The consultant found that it was not a cross-cutting separate track as it was the method by which the project implemented the other four tracks and accordingly it was incorporated in all of them.

Trust fund conducted a needs assessment study and accordingly established partnership with selected NGOs that were effectively serving the Nubian society. Also the trust fund created the Nuba Portal as a network of portals that serve different development needs in the Nubian community. The project supported computer illiteracy and other IT skills in the Nubia community through incorporating the basic IT training in every training program provided to the target segments and complemented the portal with e-resources for learners in target areas.

It is the consultant's decision to see the outcomes and impact of the first track in conjunction with the other four tracks.



8 Conclusion

This report has assessed the potential impacts associated with the integrated five-dimensional project for sustained development in Nubia. This report covers the period between Feb 2013 and March 2016.

During the examination, the consultant has reviewed the data submitted by MCIT-TF and gathered primary data independently from MCIT-TF to form an objective impact assessment of the integrated five-dimensional project for sustained development in Nubia.

The consultant considers that on the grounds of the data that has been submitted and gathered on the project and the visible associated development and impact in the target areas, it is clear that the project is likely to result in substantial positive consequences for the development in Nubia. This is especially the case with three tracks of the project (tele-medicine, empowerment and employability).

Empowering NGOs: an implementation method

This project was implemented through NGOs that are active in the targeted areas which built the capacity of such NGOs and prepared them for future development and other projects. This methodology has proven its success, since GMC for expel was considered the best healthcare service provider to the majority of the interviewed sample and that other NGOs requested to offer similar service and that officials in Nubia braised this track. Another proof is the utilization of online training to participate in regional competitions. The NGOs are doing things differently than before and not only focusing on charity but doing things that is more suitable for the digital age.

Women Empowerment

The potential women empowerment impacts arise from preserving the Nubian traditional handicrafts, passing it by to new generations and benefiting financially from selling the produced goods to improve the household incomes. With the implementation of the recommended mitigation measures and an effective monitoring and auditing program, and implementing the future expansion projects the potential women empowerment impacts will be maximized and sustained over time. New traditional handicrafts need to be focused on along with more intensive marketing activities through CSR projects and networking with exporters. Nubian youth might be more suitable to assist the vocational ladies in e-marketing the products.

Tele-medicine

The potential tele-medicine impacts arise from offering the remote diagnostic services aiming to improve the healthcare services targeting remote and neglected areas. With the implementation of the recommended mitigation measures and an effective monitoring and auditing program, and implementing the future expansion projects the potential tele-medicine impacts will be maximized and sustained over time. It is important to capitalize on the success by establishing more clinics in GMC and in other NGOs in Nubia and then move to cover Aswan as well to maximize the benefit of this track.

Employability

The potential employability impacts arise from preparing Nubians to become entrepreneurs. With the implementation of the recommended mitigation measures and an effective monitoring and auditing program, and implementing the future expansion projects the potential employability impacts will be maximized and sustained over time. It is important to join forces with a funding agency since this is the main obstacle facing entrepreneurs such as SFD or Misr EL Khair. The entrepreneurs need an access to market mechanism to maximize the benefit from the working capital and guarantee the business opportunity.

Education

The potential education impacts arise from introducing a new educational technique that encourages the students and teachers to develop themselves in a way that is more suitable to the digital age. With the implementation of the recommended mitigation measures and an effective monitoring and auditing program, and implementing the future expansion projects the potential women empowerment impacts will be maximized and sustained over time. It might be important to consider using the digital story telling in vocational education and with primary education. It is a necessity to have a cooperation protocol with Ministry of Education to generalize the benefit of this new technique; this is a major obstacle to this track. And it might be useful to separate the content creation and the content usage to facilitate the expansion of this new educational technique.

Estimating the total impact of the Nubia Integrated Development Project

ROI of the Nubia Integrated Development Project is very encouraging, as the estimation tells that the payback period of the invested amount is very short. The following table details the estimation assumption and calculations.

The numbers are based on the field research done during Jan-Feb 2016:

Budget	Outcomes (short term impacts)	Expected Impact (for the year to come - 2016)	Expected Impact (long term impact over the coming 10 years)
1,500,000 LE (200,000\$)	Tele-medicine: Beneficiaries savings: 1000LE estimated traveling cost per trip x 260 beneficiary served at one clinic = 260000LE	Tele-medicine: Beneficiaries savings: 1000LE estimated traveling cost per trip x 400 beneficiary at served two clinics = 400,000LE NGO + GP revenue: 60LE fees for the remote diagnoses x 400 beneficiary served at two clinics = 24,000 LE	Tele-medicine: Beneficiaries savings: 500LE estimated traveling cost per trip x 10,000 beneficiary = 5,000,000 LE NGO + GP revenue: 60LE fees for the remote diagnoses x 10,000LE = 600,000 LE
	Women empowerment: Vocational ladies' extra income: 25 ladies gained 2000-3000LE after selling their products = an average of 62,000 LE	Women empowerment: Vocational ladies' extra income: 60% witnessed an income raise of 20% on average (average household income is around 3000 LE), then 600LE of extra income to 60 vocational lady = 36000 LE monthly = 423,000 LE for the year to come	Women empowerment: Vocational ladies' extra income: 1000 vocational lady with an extra household income of around 500 LE monthly = 6,000,000 LE

	Employability: Trainers: 10 trainers managed to give extra courses increasing their income by 10-30% which is around 500 LE monthly = 50,000 LE for the year to come	Employability: Trainers: 10 trainers managed to give extra courses increasing their income by 10-30% which is around 500 LE monthly for at least 5 months = 250,000 LE for the year to come	Employability: Trainers: 30 trainers x 500 LE monthly for at least 5 months per year = 750,000 LE
	Education: NGO: computer equipments for 2 NGOs with an average of 20,000LE	Education: Students savings: 100-200 LE costs for private lessons if used EduNuba = 80,000 LE NGO: Utilizing the IT labs for trainings at economical fees such as 100LE per course for 100 participants x 5 NGOs = 50,000LE	
	Total	Total	Total
	392,000 LE	= 1,227,000 LE	= 12,350,000 LE

It is crystal clear from the table above that the ROI of this project is very high, and that its payback period is very limited. This project can pay its fees in less than two years (2015/2016) which makes it very successful project to build upon. The last column leads us to believe that expanding building upon this project will render a very positive ROI on the long run.

Notice that our estimation did not include the governmental costs of establishing a healthcare facility unit serving the target segments or sending healthcare staff to these remote areas. We focused on the direct impact on the Nubians in our assessment.

This is a very promising project to build upon.

Skyrocketing your Experience