International Federation of Red Cross and Red Crescent Societies

PAKISTAN RED CRESCENT
ہلالِ احمر پاکستان

British RedCross

Review of Red Rose Platform Pilot in the Distribution of Long-lasting Insecticidal Nets (LLIN) in Pakistan

Women & Men gathered at Distribution point in Thatta District, Sindh to collect LLINs

GLOSSARY

Cash-transfer-program (CTP) is programme designed by IFRC to provide cash to beneficiaries in emergencies

Database management involves storing, backing-up data restoring data, monitoring and cleansing of data to ensure data-driven applications perform optimally and risks are mitigated.

Digital beneficiary registration involves capturing details of individuals via mobile devices (Android devices) for enrolment into PRCS LLINs & CTP distribution programmes.

Hardware refers to the physical components like computer system, mobile phone, phablets, tablet devices, laptop computers.

Information communications technology refers to any product that will transmits & receives information, store, retrieve, manipulate, using personal computers, mobile phones, email and television, radio using Telecom service provider, Internet Service providers and vSAT and satellites.

Responsible data concerns the Skip logic involves skipping between questions based on certain answers

Specific tools mentioned short-term intervention used by humanitarian organizations to provide temporary employment in public projects involves digitilizing processes of gathering information using mobile phones or tablets instead of pen and paper ethical, security and privacy challenges around data collection, management, analysis and disposal

Open Data Kit (ODK) – A free and open-source set of tools that help organizations author, field, and manage mobile data collection solutions. https://opendatakit.org/

RedRose ONEplatform – programme management system that enables delivery of paper and electronic vouchers as well as cash transfers. https://www.redrosecps.com/

THATTA — District of Sindh "Second biggest province of Pakistan"

Babar Zahoor,
Chief Technology Officer, OpenWare Business Pvt. Ltd.
babar@owb.com.pk, Twitter @BabarZahoor
Open Source Evangelist, Senior IT consultant, IT Infrastructure & Digital Strategy, Social Entrepreneur, Tech blogger, Public Speaker. Having 19+ years of experience in Information Technology and Humanitarian Sector. Previously he was associated with Oxfam Novib as Regional IT Manager for ASIA & AFRICA regions.

LIST OF ABBREVIATIONS

BYOD	Bring your own Device
BRCS	British Red Cross
CTP	Cash Transfer Program
DMC	Directorate of Malaria Control Pakistan
DHO	District Health Officer
DPs	Distribution points
GPS	Global Positioning System
HPA	Humanitarian Partnership Agreement
HHs	House Holds
IFRC	International Federation for Red Cross and Red Crescent Societies
ICT(s)	Information communication technology
ITO	Information and technology officer
INGO	International Non-Government Organization
IS	Information System Department
ICT4Humanitarian	ICT tools used to support in Humanitarian Assistance activities
ICT4D	ICT tools used in development programmes
KPK	Khyber Pakhtunkhwa, province of Pakistan
LLIN	Long-lasting Insecticidal Nets
MEAL	Monitoring, evaluation, accountability and learning
NFI	Non-food items
ONEplatform	Combination of "ONEapp"& "ONEsolution" by Red Rose CPS
ONEapp	Android app developed by Red Rose
ONEsolution	Data Management & analysis system developed by Red Rose
ODK	Open Data Kit
PRCS	Pakistan Red Crescent Society
PRCS PHQ	Pakistan Red Crescent Society Provincial Head Quarters
PDM	Post-distribution monitoring
P R C S - D M S	Locally developed data management system portal by PRCS
SRS	Software requirements specifications
UN WFP	United Nations World Food Programme
UCs	Union Councils

RED ROSE PILOT IN DISTRIBUTION OF LLINS AT UNION COUNCILS OF THATTA, SINDH, PAKISTAN

EXECUTIVE SUMMARY

Over the past two decades, Information Communication Technologies (ICTs) have become integral part of every walk of our life. ICTs have enabled organisations, businesses, financial institutions, manufacturers, farmers and entrepreneurs to achieve desired goals. ICT is an effective tool for humanitarian delivery to manage timely actions and response to market demands. Key benefits for the usage of ICTs are but not limited to time saving, accuracy, donor acceptability, Monitoring Evaluation Accountability Learning (MEAL), inclusiveness, fast decisions making, quality, global outreach, connectivity, collaboration, effective planning and quick response to feedback from the key stakeholders.

PRCS utilised ICT tools for data collection in LLINs distribution project in order to contribute in Government of Pakistan's initiative to eradicate Malaria in the country. PRCS in partnership with UN WFP implemented the humanitarian delivery of LLINs for 1.12 Million households across the three provinces namely Sindh, KPK including recently merged Tribal regions and Baluchistan. The project activities were carried out under the supervision of DMC. Technical and Financial support were provided by Indus Health Network and UN WFP respectively.
PRCS planned to register beneficiaries and distribute LLINs using ICTs tools for mobile data collection and distribution.

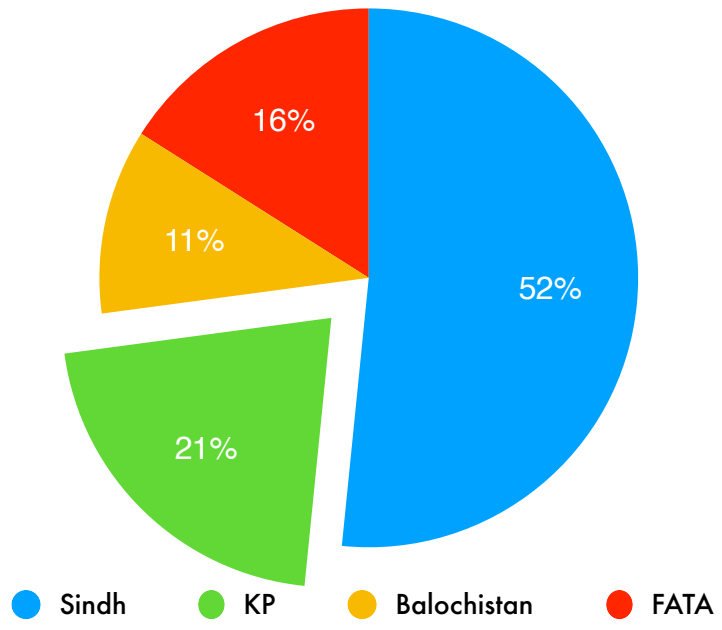
The aim of the project was to control malaria in the high-risk areas of Pakistan by distributing 2.5 million LLINs in 12 districts of Sindh, KPK Including recently merged tribal regions and Balochistan, provinces of Pakistan. Project activities were carried out in 3 months included preparatory work, micro-planning, registration of households, transport & storage, distribution & supervision of LLINs in all target districts. Details of the project are shown below.

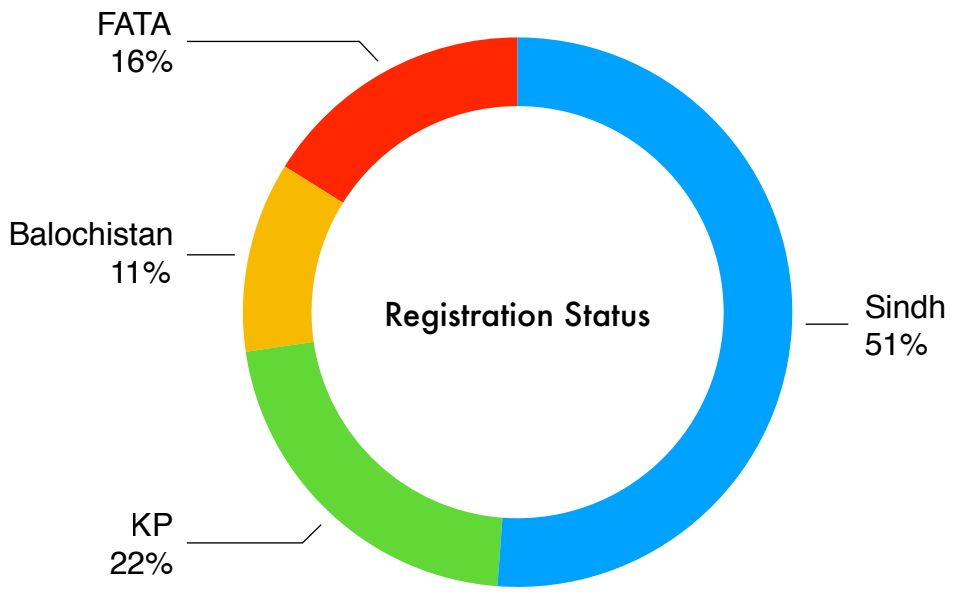
Overall **505** static distribution points including mobile DP's in **Sindh, KPK, FATA and Balochistan** were established for the distribution of **2,492,771** LLINs.

LLINS DISTRIBUTION SUMMARY OF ALL PROVINCES

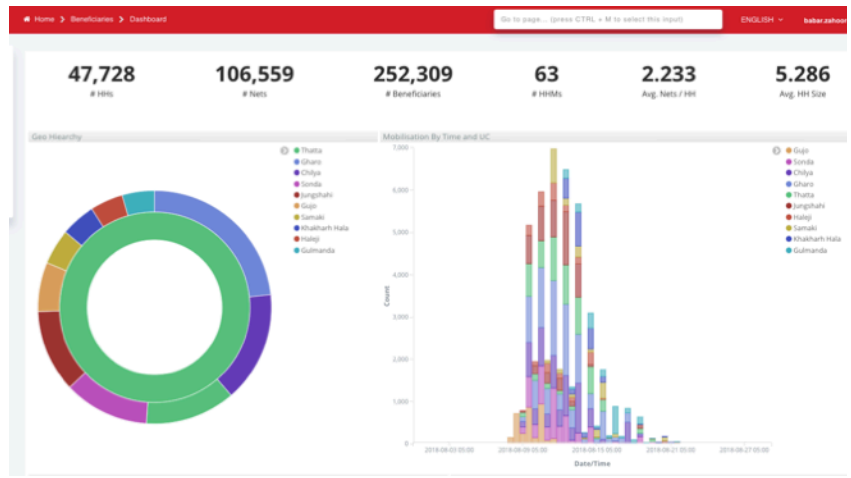
PROVINCE	TOTAL LLIN DISTRIBUTED
Sindh	1,286,140
KP	530,602
Balochistan	276,813
FATA	399,216
Total	2,492,771

PROVINCE	REGISTERED BENEFICIARIES
Sindh	575,550
KP	242,156
Balochistan	126,061
FATA	181,060
Total	1,124,827





Sample coupon, beneficiaries were provided with these coupons during registration



Screenshot of Red Rose Data Analysis engine, part of Red Rose ONEplatform

PRCS had engaged local IT expert to design & develop software tools for PRCS having 03 parts; First is "Mobile app for Data input using ODK Forms, second "Mobile app for Distribution of LLINs" and 3rd part was " Web tool to upload, analyse and manage gathered data using ODK mobile app.

IFRC also provided set of software tools called Red Rose apps to run pilot in Thatta District of Sindh Province.

IFRC introduced Red Rose pilot in 4 countries in collaboration with Red Crescent & Red Cross National societies including PRCS. Red Rose pilot was aimed to provide support in CTP activities.

Red Rose app called "**ONEapp"** manages activities that include beneficiary registration, distribution of cash and NFI using paper based QR code coupon. Red Rose web platform called "**ONEplatform"** was used for data management & data analysis. ONEapp and ONEplatform are part of Red Rose platform called "**ONESolution"**. (For more details about Red Rose Apps please read Annex section 1.x)

PRCS registered **47,728** households and **252,309** beneficiaries in **9** days activity in 10 UCs of Thatta. To register beneficiaries **85** volunteers from local communities after through training of Red Rose were engaged in activities.

PRCS distributed **100,559** LLINs among **44,776** households in only **5** days activities and **85** volunteers were engaged at **19 DP's** of **10 UC's** in **Thatta**.

The project achieved **97% success** rate with the effective & efficient use of ICT4Humanitarin tools. Red Rose having more features and functionalities provided better results in all activities, include data gathering, distribution and data analysis phases.

BYOD policy applied by PRCS was intelligent strategy to reduce the challenges of procurement & inventory management of android mobile devices. As a result of BYOD, thousands of CHF, time and efforts were saved. Due to crucial requirements of Internet connectivity to upload data on daily basis. PRCS had provided mobile Internet package to all volunteers and Internet sharing devices (3G and 4G dongle) to the team supervisors.

To ensure the registration of all households in all targeted districts, volunteers under the supervision of UC and district supervisors visited houses in all districts. To have trained resources in project execution activities in Thatta district. IFRC engaged Red Rose experts from Turkey to train PRCS teams in Pakistan. Red Rose experts provided online support to ensure software uptime from Turkey during the project implementation phases.

IFRC CTP lead at Geneva also visited Pakistan during the distribution activities in Thatta during Red Rose pilot. ITO IFRC Pakistan country office along with CTP delegate Pakistan ensured extensive support in the field during the project activities.

Paper vouchers with unique identifiers and security features on top of the UN WFP/Government coupons were utilised during project implementation. Red Rose apps having QR code reading capability were key enabling factor to achieve accuracy in registration of beneficiaries and quick & effective distribution of LLINs.

Volunteers at Thatta district installing ONEapp on Android mobile devices with the support of ITO from IFRC Pakistan

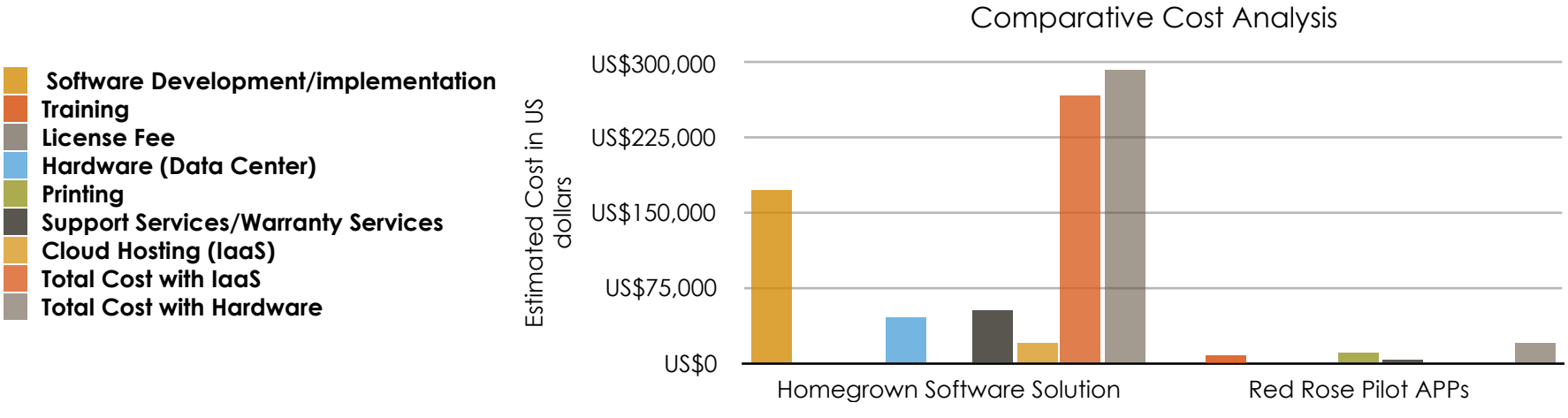
Volunteers using ONEapp during project implementation activities in district THATTA, Sindh, Pakistan

COMPARATIVE COST ANALYSIS

It is bit difficult to perform comparative cost analysis between two software where one was used as pilot and second needs development after planning, design and huge investments. To compare both scenario author has prepared estimated costs sheets based on required features identified by managers, volunteers, key stakeholders during after action review and learning workshop.

Author had generated list of features & functionalities for managers, supervisors, data analysts and volunteers to identify required features as "Must, Desired and Not Needed" from respective list of features.

To launch software service in organisation IT teams go through few important steps include; Procurement of hardware (Servers, Network equipment etc). Hire software development company (in case of homegrown solution), or purchase ready made software according to need. Provision uninterrupted Internet connectivity for software environment, so users can access it from anywhere in the world. Provide training to users, setup secure environment for hardware and software. Other costs are also included in study i.e. License fee for software (Operating System, Databases, Applications), training of all type of users i.e. system admin, power user, master trainer, end user and support charges in case of hardware, software, databases etc. (Please read detailed information about TCO in section 7. Total Cost of Ownership)



Fee paid to Red Rose for Red Rose pilot was **CHF=19196.44** and estimated cost to develop homegrown software solution having same features like Red Rose will cost **US$292,030** with data centre environment and **US$265,530** without data centre environment and with Cloud IaaS hosting.

Note: 1CHF=1USD

LESSONS LEARNED

- Effective usage of ICT tools provided opportunity to achieve better results in less time and cost effective manner. Red Rose was key factor to reduce errors, increase efficiency & effectivity in data collection & data management with less cost. Having more features in Red Rose enabled users to perform well in different activities during Red Rose pilot.
- It was learned that Red Rose provided ease-of-use, easy to explain capabilities for every user.
- Red Rose early trained users were able to engage volunteers in data gathering activity after small session of training. Staff involved in data management activity using Red Rose were able to eradicate error in few clicks.
- Red Rose made it easy for users to complete registration & distribution in very less time with effective utilization of QR code coupon features.
- Look & feel of ONEapp by users were also found friendly, involving, easy to explain/teach. Users were confident on tasks completion using ONEapp.
- Users found ONEapp more supportive while performing project activities i.e. registration & distribution.
- Data analysis & data management was few clicks away from users of ONEplatform.
- Deduplication tasks were quite hectic tasks while using PRCS-DMS but Red Rose ONEplatform made it very easy for key responsible.
- The Red Rose pilot at PRCS is a model, it should be considered for replication in other areas. As it had been proven effective tool dealing with masses in emergencies.
- The approach of BYOD to carryout project activities was a good way to save time and to reduce financial overheads. It should be practice wherever situations and context permits.
- The approach of supporting a percentage of focal points from support and technical functions has been critical for success. In house Red Rose support team will enable IFRC, PRCS & National societies to rollout Red Rose beyond pilot.
- A multitude of training approaches, from webinars, training, workshops, online meeting will contribute effectively while producing Red Rose trained staff in other upcoming humanitarian delivery projects & programmes.
- After successful pilot project, there is a high level of confidence that IFRC, National societies will continue to use Red Rose in full scale.
- Having support from IFRC (HQ & country office Pakistan) and Red Rose team of experts while making them available online during project activities made it successful pilot project.
- Technology used behind Red Rose supports scale-up during bigger project activities in bigger scale in very less time and cost effective.
- Red Rose was found cloud ready software, easy to scale-up, full responsive software, engaging, easy to learn and teach. Adding more volunteers in a list of trained Red Rose resources will be easy task.

RECOMMENDATIONS & WAY FORWARD

- Building technology solutions for humanitarian needs, require longterm commitments, budgets in hands with expertise in technology, functional and operational level. Engagement with service providers like Red Rose will empower IFRC, PRCS and peer national societies. ICT tools made by Red Rose will enable organizations to perform better on their primary goals i.e. Humanitarian Delivery.

- Companies like Red Rose are expert in humanitarian delivery software and good in providing uptime support, security, data backup/restore services. PRCS shall invest time and resources in engaging good technology service providers having good background in humanitarian IT tools and services.
  Red Rose tools may seem expensive but to design same level features & functionalities in any homegrown software solution requires huge investments, also required to engage software developers, data scientists, cloud computing professionals and functional experts. According to estimation 15-18 months time will be required to establish same features & functionalities in any homegrown software. (Please read section 6. Total Cost of Ownership for more clarity)

  It is recommended to hire expert with ICT4D & ICT4Humanitarian skills (desired) and ICT4DRR (good to have). The expert should have good technology and humanitarian sector experience. He/she should be part of bigger plan before choosing any ICT tools for humanitarian delivery programmes & projects.
  It is recommended to engage one expert in regional level to provide support of Red Rose to IFRC and National Societies. Engagement with ICT expert will make digitalisation more practical, effective, timely and sustainable at PRCS.

- IFRC with other National societies resource sharing will strategise digital move within PRCS at National, Provincial and Districts levels. Resource sharing may include technology & functional experts, guidelines for digital strategy, software toolkits with sustainable plans. After a successful implementation of project using ICTs tools, PRCS is increasingly considering ICTs as a fundamental component of humanitarian response.

1 INTRODUCTION

1.1 PAKISTAN RED CRESCENT SOCIETY

Over the past two years Pakistan Red Crescent Society (PRCS) with the support of its Red Cross and Red Crescent Movement partners has undergone a process of institutionalising cash into the NS systems and better equip itself to respond to medium to large scale cash operations in the future. Significant feats had been accomplished including the increase of pool of CTP trained staff and volunteers, approval of a Cash SOP, framework agreement of financial service providers in place and conducted pilots tests and small scale cash responses.

1.2 BACKGROUND

The Government of Pakistan's campaign to eradicate Malaria in the country, PRCS in partnership with UN WFP implemented the humanitarian delivery of LLINs for 1.12 Million households. Three provinces Sindh, KPK (including recently merged Tribal regions) and Baluchistan were targeted to provide LLINs. The project activities were carried out under the supervision of DMC. Technical and Financial support were provided by Indus Health Network and UN WFP respectively. PRCS planned to register beneficiaries and distribute LLINs using ICTs tools for mobile data collection and distribution.

Distribution of LLINs in 1.2 million household in 12 districts were ambitious targets. To achieve those targets PRCS deployed ODK forms (mobile app) and also used Red Rose apps to aid the beneficiary registration process and distribution.

1.3 THE REDROSE PILOT

The Red Rose pilot had two components; one was the use of paper voucher as a coupon for beneficiary registration and distribution of LLINs. Second, to pay per diem to volunteers. The pilot for beneficiary registration and distribution of LLINs was in the District of Thatta, Province of Sindh. The pilot target was to reach 160,000 households. RedRose utilization for an in-kind distribution was the first of its kind in the Red Cross and Red Crescent Movement. The second component of the pilot was to integrate with financial service provider (FSP) to disburse cash.

2 INTERVENTION AND CONTEXT

The ICT tools were setup to improve the quality and efficiency of LLINs distribution. The ICT tools helped PRCS to reach the beneficiaries in Humanitarian delivery, efficiently and effectively.

Outcome 1: Beneficiary identifications are correct, timely and productively administered through mobile data collection tools

Outcome 2: Beneficiaries are effectively registered and delivered LLINs using Red Rose

Outcome 3: Monitoring of humanitarian delivery is efficient and transparent using ICTs

Outcome 4: Beneficiary accountability mechanisms are reliable and accurate

Outcome 5: Increased awareness by peer agencies and donors in the humanitarian delivery

3 METHODOLOGY OF THE REPORT

3.1 METHODOLOGY

3.1.1 OBJECTIVES

- Reflect on learning connected to Red Rose pilot outcomes, sharing practical experiences and lessons learned.
- Comparative study on the use of the Red Rose platform in the distribution of Long-lasting Insecticidal nets (LLINs), focusing on cost-benefit analysis on the use of the technology in two focused areas in the province of Sindh and capturing recommendations on the improvement of PRCS data management, reporting and monitoring systems
- Consider the extent to which the Red Rose can be utilised as standard tool in upcoming humanitarian delivery activities across the country with ICTs tools to have added value to activities across the humanitarian projects in Pakistan carried out by PRCS and supported by IFRC and other members of Red Cross federation

3.1.2 QUESTIONS

- What was planned and achieved for the RedRose pilot set-up to implementation?
- Throughout this process: what didn't go so well and what needs to be changed for the future?
- In comparison to the controlled environment (10 UCs) versus the live environment (other UCs in Thatta District), analyse cost benefit focusing on system efficiencies and effectiveness.
- Software features and functionalities, cloud ready?, scale-up possibilities?
- How was the user experience?
- Was the software fully responsive and BYOD ready?
- Was it easily accessible, ease-of-use, attractive for users, efficient, trustworthy, stimulated?

How the software was beneficial for users;

- Performance expectancy (accuracy in data input - accepted data / rejected data)
- Effort expectancy (volunteer and beneficiary age bracket, gender, transgender)
- Social influence
- Facilitating conditions
- Self-efficacy

How the users felt using these software:

- Did the software tilts users attitude toward using technology
- Did users felt anxiety and why?
- What was the user's behavioural intention to use the system/software

Also evaluate to understand how the efficiency can be enhanced using this software while getting understanding of;

- Data input form, output required from software, were users getting required output from software i.e. specific reports?
- Evaluate required form, field data gathering ways input form i.e. paper or digital, way of inputting data into the system
- Try to find out sourcing of errors to eradicate in future

3.1.3 DATA COLLECTION AND ANALYSIS

This document is based on highlighting key lessons learned and good practices for the Red Rose ONEplatform & ONEapp in humanitarian delivery. The methodology began with a features & functional stock taking. It was based on Red Rose user experience, look & feel and ease-of-use. Literature review; include internal interim evaluation, focus group discussions and after actions review and learning workshop.

Primary data was collected in PRCS NHQ, PRCS PHQ, Sindh and Thatta district via in-depth interviews with key project stakeholders. Interviews were conducted with global coordinator, county focal point, humanitarian lead, ITO, project managers and CTP delegate in Pakistan. The majority of these meeting were in person. Field visit to Sindh province was conducted on 06-11 November 2018. Interviews with provincial manager, project officers and project implementation responsible were held at Karachi and Thatta. Focus group discussions were held with enumerators.

Group Photo: Author with volunteers & district supervisor, CTP delegate during his filed visit to Thatta District

A learning event was held at Islamabad on 14 November 2018. Event was attended by volunteers, supervisors, provincial managers and National manager from KP, Sindh, Balochistan, FATA, Islamabad and Thatta district. PRCS teams from NHQ and PHQs shared key learnings of project using ICT tools both ODK and Red Rose.

Participants shared challenges and benefits faced during usage of technology in project. Group activities were key components to assemble the required features in software for future projects.

Project managers and key stakeholders produced a list of data management features & functionalities in the categories; Must have, desired and not needed.

District supervisors with volunteers produced a second list of features & functionalities, required in mobile app for registration and distribution activities.

3.2 LIMITATIONS

Dedicated learning events were held with relevant staff and volunteers in THATTA District office and only few volunteers and supervisors were interviewed due to time constraints. Key respondent were actively involved in ODK and Red Rose utilisation having practical experience. To get more detailed learning on the use of ICT tools and Red Rose Apps after actions review & learning workshop was conducted at Islamabad.

4 REDROSE PILOT

4.1 RED ROSE

With over 30 years experience working in the humanitarian and card payment sectors, the RedRose team has designed and developed a unique, web based system. Software is tailored solely to meet the needs of the Humanitarian Sector. The ONEsolution enables NGO's to register beneficiaries, rapidly mobilise Cash and DIK Programmes and provides real time monitoring and evaluation reporting.
RedRose worked closely with IFRC, PRCS to design and deliver system to meet programme requirements. RedRose also provided on site training as well as ongoing technical support. (More details about Red Rose Apps features & functionalities are available in Annex section)

4.2 THATTA DISTRICT PILOT

Thatta District of Sindh province was selected for Red Rose pilot. The pilot was focused on 10 UCs of Thatta and IFRC provided technology support to PRCS with Red Rose software tools to carryout project activities Thatta.

To carryout project activities in pilot, paper vouchers were used with unique identifiers and security features on top of the UN WFP/Government coupons. Red Rose application was installed on 85 volunteers android mobile and Beneficiary registration activities were started form 9th August and completed on 16th August 2018. To add more beneficiaries and households mo-up activity was held on 21st August.

Thatta District, Sindh, Pakistan

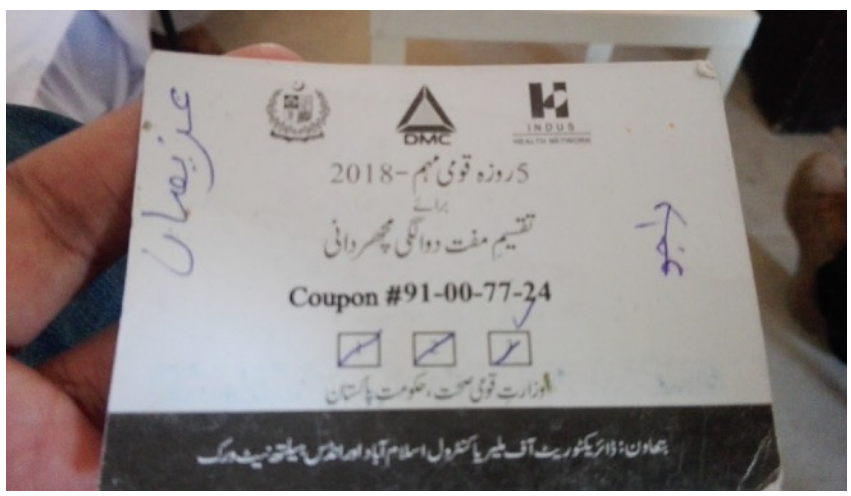
4.2.1 WHAT WAS PLANNED?

At the end of registration, there were **47,784** families (**252,271** individuals/family members) registered and given vouchers and coupon. After registration deduplication activity was performed with the correct CNIC.

4.2.2 WHAT WAS ACHIEVED

The distribution dates were initially planned from 8th to 12th September. Due to change in plan, activities were held on 13th to 17th September 2018. There were initially 15 distributions points (DPs) identified but increased to 19 DPs to facilitate more beneficiaries during the distribution.

At the end of the distribution, a total of **44,969** households were distributed with **100,439**. The project was completed with **97%** success rate.



Coupon printed in Urdu language (National Language in Pakistan)

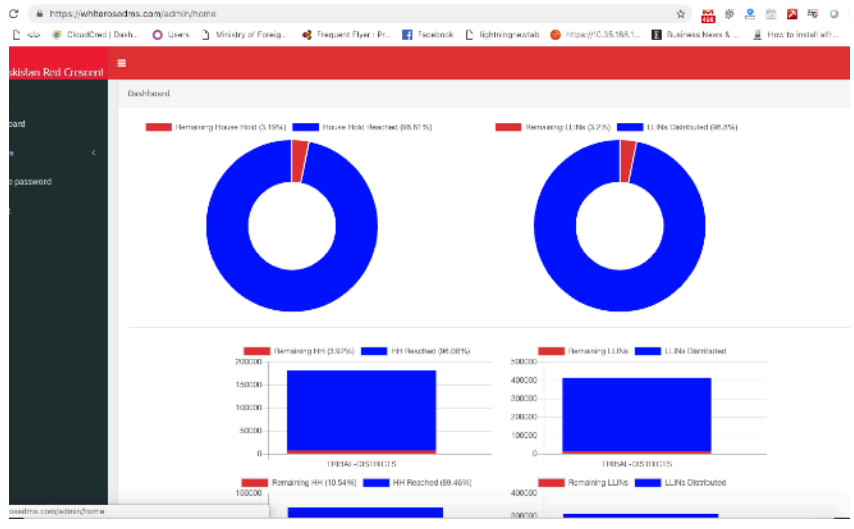
4.2.3 MOP-UP AND COMPLETION

To register more households, a mop-up activity was

initiated for 2 more days after 7 days of beneficiary registration activity.

4.2.4 ODK KIT

The tools for data collection was initially developed and shared for the consent of UN WFP and DMC . After finalization from partners forms were converted to ODK online platform. Testing of ODK was performed through volunteers after through training on ODK platform. To provide detailed understanding on ODK, guidelines in Urdu were developed. For plan "B" printed sheets were also distributed among enumerators.



Screenshot of PRCS Data Management System

The main heads for data collection were; "Date of data collection, Name of head of HH, CNIC 13 digits number, Coupon 8 digit number, Cell phone number, number of family members, Date of distribution, Point of distribution and name of enumerator".

Registration activities were held for 9 days. After completion of registration process data in the form of excel sheets were downloaded from ODK online platform.

4.2.5 MICRO PLANNING STAGE

To chalk our plan at micro level workshops were conducted for UCs supervisors to help them understanding on micro plan development. District administration & health population data was combined with Census 2017 To evaluate populations. After micro planning workshops, UCs supervisors mapped rural settlements and HHs.

After detailed working with UC supervisors and provincial teams micro planing documents were shared with DHO for endorsements. Health department teams were also part of the whole process. At final stage 12 micro plans were shared with DMC and UN WFP .

5 FINDINGS AND ANALYSIS

5.1 EFFECTIVENESS

5.1.1 VALUE-ADDED OF RED ROSE

Findings are based on multiple learning opportunities in pilot and the Mid term review. It is important to stress that Red Rose is good tool as a value addition to programmes of PRCS. Red Rose has been designed to provide key functionalities and features required to manage beneficiary registration and distribution using mobile devices. It's usage in a bigger scale will help in better planning & implementation of programmes. During the discussions with volunteers and stakeholders it was observed that Red Rose tools had provided efficiency in LLIN distribution during the pilot.
Achievement of outcomes 1 & 3 show significant progress. The outcomes of using mobile data collection are similar in delivery of both approaches Humanitarian delivery using mobile data collection were most popular and successful approach across PRCS activities using Red Rose.

5.1.2 TIME SAVING

Red Rose has been proven a time saving and efficient tool for organised humanitarian delivery. Data gathering, distribution and analysis using Red Rose was quick & easy compared to ODK and PRCS-DMS. Beneficiary registration using paper based data collection methods takes average 4-5 minutes per form. Registration of beneficiary using ODK mobile app average time required is 01 minute and using Red Rose it was less than 01 minute without any errors.
Red Rose tools were able to process the distribution of LLIN in less 01 minute. Red Rose apps saved significant time in adding large number of beneficiaries with minimal errors. It was also witnessed during the study that some volunteers were able to distribute 1500+ LLINs in one day. It was only possible due to the QR code scan processes involved.

5.1.3 COST SAVING

Across the board there was impression that Red Rose is handy tools but expensive compared to other available software solutions in the market. To compare the difference between Red Rose costs and any homegrown solutions Total cost of ownership and comparative cost analysis are added in section 6.X

5.1.4 INFORMATION SECURITY

Red Rose is compliant with GDPR, which ensures the security of information and privacy of users data.

5.1.5 DATA USAGE

Red Rose enabled PRCS to authenticate beneficiary identity and proactively reduce the risk of fraud and duplication of registration issues. It was possible for PRCS, IFRC and partners to immediately monitor demand for LLINs using the coupon vouchers and make preparations or project alterations according to demand.

5.1.6 ACCOUNTABILITY & TRANSPARENCY

Red Rose enabled PRCS, IFRC to use readily available technology. Accountability and Transparency are key outcomes of Red Rose usage. It supports PRCS's key commitment to accountability and transparency. Reports processed by Red Rose were readily acceptable to the donor and peer organizations.

5.2 CHALLENGES & SOLUTIONS

Implementing Red Rose had some minor challenges, which were taken care during training and setup. The majority of the time users are not ready to embrace technology and need hand holding. Red Rose experts provided extensive training to overcome these minor challenges.

5.2.1 CONNECTIVITY AND INFRASTRUCTURE

Internet connectivity was good in major areas of Pakistan but some areas had issues with internet connectivity. Remote villages in Sindh, Balochistan and FATA were few areas where connectivity issues were seen. Few field workers also faced infrastructure challenges, such as reliable electricity for Internet providers telecom towers and power backup for mobile devices. In these area off-line mode of Red Rose mobile app worked well.

5.2.2 STAFFING

As with many programmes depending on a wide range of trained staff in specific tools, turnover can be a challenge for Red Rose tool as a skillset. Training needs to be repeated among new staff members and refresher among old staff will help PRCS & IFRC to keep staff updated with Red Rose skills.

5.2.3 OPERATIONS

Red Rose focal points and the operational environment in-country should have one in each region. Two staff members can become part of team in each country operations for Red Rose. There shall be combination of IT and programme staff directly involved in humanitarian delivery.
Need to create superusers who take lead on Red Rose and those shall be given a role of focal points in National societies.

It is not mandatory for all involved to be extra ordinary user of Red Rose but understand the major functionalities. In some cases MEAL is a good place for Red Rose to be managed, as it is a starting point to enable monitoring activities. MEAL is mainly involved in data handling & analysis. MEAL is not primary responsible for Red Rose therefor should not be considered as key responsible. Red Rose should be reviewed as a programme delivery mechanism and owned by programme teams.

5.2.4 COUNTRY AND REGIONAL FOCAL POINTS

To achieve successful rollout beyond Red Rose pilot IFRC needs to bring onboard country focal points and regional coordinators. The job profile shall include; ICT4Humanitarian, ICT4D focusing on Red Rose skills and disaster management tools. Multiple focal points at different regions needs to be onboard to expand usage of ICT in Humanitarian delivery.

5.3 RELEVANCE

5.3.1 GENDER AND INCLUSIVITY

Red Rose can ensure digitally how much beneficiaries are women & men. By using Red Rose tool equal opportunity can be given to women while distributing goods or cash to women in target areas. Training of Red Rose will be needed to employ an equal balance of male and female enumerators.

5.3.2 ENGAGEMENT WITH STAKEHOLDERS

Red Rose has been designed to provide efficiency, gathering timely factual needs from target areas. Given the fact that partnerships are a core way of working. Sustainable models are crucial for partners considering how they will cover costs of Red Rose. Moving forward, there will be a need for clarity around how data flows between different organizations, which is likely to require robust data sharing agreements to ensure the right partners are given the right access to different data.

6 AFTER ACTION REVIEW & LEARNING WORKSHOP

British Red Cross Delegate for Pakistan and Afghanistan with PRCS

Attendees of after action review workshop at Islamabad

WORKSHOP AGENDA

- Presentation on Project CTP and LLINs Distribution by National Program Manager
- Group Activity (Challenges faced during implementations) Tech and Non-Tech usage
- Group Activity (Benefits of Having ICT4Humanitarian Tools in Project Implementation)
- Activity with Managers (To Identify required features in Data collection and data management Tools)
- Activity with volunteers and supervisors (To Identify required Features in data collection Tools)
- Sharing views of Usage of Red Rose, ODK, PRCS-DMS

Two members of one group sharing group findings with all participants of Workshop

Program Manager Cash Based Intervention PRCS, Presenting project outcomes at "after action review & learning workshop" in Islamabad

6.1 OUTCOMES OF WORKSHOP

After action review workshop was held on 14 Nov 2018 with below agenda items.

6.1.1 TECH CHALLENGES:

During the activity it was learned that, HR capacity building, Internet coverage area and expensive Internet devices were key challenges. Usage of GPS was not available in certain areas. QR code was only option and no replacement was available to QR code in Red Rose. Duplication of beneficiary registration due to lack of realtime data in ODK was another challenge.

6.1.2 NON TECH CHALLENGES

During the session NON TECH challenges were also discussed, manual data collection takes more time. Huge efforts required to convert manual forms in to digital, more admin & logistics cost acquired, printing costs, storage costs, excessive paper usage. It also lack in quality outcomes, duplication were found in manual data entry and making good reports and perform analysis from manual data is near to impossible.

6.2 BENEFITS OF USING ICT4HUMANAITARIAN TOOLS

This activity was designed to gather benefits of usage of ICT4Humanitarian tools in Project. Benefits were shared by participants;

1) Easy to use and error free or less errors.

2) Time saving and cost efficient.

3) Reutilisation of data and real time availability of data.

4) Good data compilation and management.

5) Customisable /editable / easy management of data analysis.

6) Data security and long term data availability.

7) Environment friendly.

8) Reduced time required to perform activity.

9) Low admin / logistics costs.

10) Easy way to find beneficiary information in emergency situations.

11) Transparency and accountability.

12) Ensured Data backup/recovery in situations.

13) Fast & timely decision making through realtime data analysis

6.3 ACTIVITY WITH VOLUNTEERS AND SUPERVISORS

To Identify required Features in data collection Tools

Group work activities during after action review Workshop

This activity was carried out to gather information regarding desired features and functionalities by volunteers, supervisors, so they will be able to perform their duties in effective & efficient manners. Mentioned below are most important required features & functionalities by key responsible;

1) Hybrid application (Mobile, Phablet, Tablet, Computer.

2) Offline / online access.

3) Biometric scan/verification

4) Battery power-bank.

5) Distribution point indicator.

6) Restrict duplication coupon with CNIC.

7) CNIC number at the time of registration.

8) Easy login for volunteers.

9) Segregation of redeem/un-redeem vouchers data accessible for DP in-charge.

10) Searching options on mobile app.

11) One application for all activities (Registration/distribution)

Group Activity during after action review and learning workshop

6.4 ACTIVITY WITH MANAGERS

To Identify required Features/Functionalities in data collection & data management Tools

This activity was carried out to gather information regarding desired features and functionalities by Managers, Program leads, Senior management so they will be able to execute projects and big programmes in timely, effective & efficient manners. Mentioned below features and functionalities in two (02) tables;

M = Required features (Must)
D = Desired
NN = Not Needed

Features and Functionalities	M	D	NN
Programme Management			
Remote Management	x		
Multiple Programmes	x		
Scheduled Reports	x		
Automated Programme Schedules		x	
Beneficiary Management			
Registration	x		
Vulnerability Assessment	x		
Flexible Data Fields	x		
Data Import (Beneficiary)	x		
Filtering / Grouping	x		
Continual Beneficiary Analysis	x		
Customised Surveys	x		
Group SMS Messaging	x		
Works Offline			
Offline Capability	x		
Automated Background Sync	x		
Peer-to-Peer Sync			?
Monitoring & Evaluation			
Beneficiary Dashboard	x		
Vendor Dashboard	x		
Transactions Dashboard	x		
Market Dashboard	x		
Cash For Work Dashboard			x
Custom Dashboards	x		
Financial Management			
Donor & Grants	x		
Spending Limits	x		
Allocations & Disbursements	x		
Segregation of Duty	x		
Approval Notifications	x		
Payment Tracking	x		
Customisable Receipts			x
Vendor Day Reports	x		
One Time Password			x
Global Dashboard			
Global Level	x		
Country Level	x		
Programme Level	x		

Features and Functionalities	M	D	NN
Multi Wallets			
Currency Wallet			x
Item Values			x
Complaint Management			
Complaint Registration	x		
SMS Hotline	x		
Issue Tracking & escalation process	x		
Data Import & Export			
Excel Export	x		
Excel Import	x		
3rd Party Tools	x		
Attendance Tracking			
Attendance Location Management	x		
Attendance Management	x		
Fraud Prevention		x	
Device Management			
Online & Offline Devices	x		
Automatic Updates	x		
3rd Party Integrations			
ISO Core Banking Compliant	x		
REST Api	x		
Accounting Systems	x		
Vendor Interface			
Sales	x		
Card Status	x		
Distributions	x		
Sales History	x		
NFC		x	
Bluetooth		x	
2G / 3G / LTE / Wi–Fi	x		
GPS	x		
Mobile Bluetooth Printer	x		
Barcode Scanner	x		
Biometrics	x		
ID Scanners	x		

6.5 SHARING VIEWS ON USAGE OF RED ROSE, ODK, PRCS-DMS

It was observed that users of Red Rose & ODK include volunteers, supervisors, provincial & national manager were well versed with the functionalities and features of Red Rose.
They explained the process how they had utilised Red Rose in data collection, distribution, data management & data analysis in very easily.
Reporting on Red Rose system was quite handy, performing in depth analysis of any UC was quick and easy task. Red Rose was quick to compile reports & analysis based on live data input.
Senior management from PRCS shared reservation regarding costs of Red Rose and hosting of application out of country.
Volunteers also mentioned some challenges faced during usage of ODK forms. ODK forms required to add enumerator name in each form after entering beneficiary information. It was challenge to eradicate duplication of entries using ODK Forms.It was also discussed that ODK platform was able to provide excel sheet as download according to district names and data analyst at PRCS NHQ was responsible to upload data on PRCS DMS after deduplication process. PRCS app was utilised by volunteers during distribution activities other than Thatta 10 UCs after uploading list of beneficiaries on each mobile devices.

7 TOTAL COST OF OWNERSHIP

7.1 CALCULATING TCO

Points needs to be considered to calculate Total cost of ownership:

To develop homegrown software solution major financial investments, expertise, time investment and engagement with experts will be needed. To setup in house software application hosting facility investment in procurement of hardware, setting up facility for data centre will be required. And in-house IT team with system administrator, network administrator, support desk will be responsible for management of IT environment and software uptime, security etc.

To support our study we have chosen software features & functionalities from activities performed with managers & volunteers during after action review & learning workshop and considered them as a base required features for software model to move forward. It is not simple task to compare Red Rose pilot with intended homegrown software but we have compared required features of intended software with Red Rose as almost all required features & functionalists are already available in Red Rose apps.

Calculating TCO for any software is not straightforward task and to support this study author have gathered estimated costs of all important factors to setup environment and develop software mentioned in below.

Table 7.1

Data Centre	Cloud Services	Software	Support Services	License / Misc Cost	Training	Security/IT Audits
Server	IaaS	Development	Hardware	Hardware	End User	Software Security
UPS	Storage	Upgrade	Software	Software	Super User	Data Center Security
Data Center Facility	SaaS	Enhancements	Helpdesk	Operating System	System Support	Data Security
Power Generator	Compute	Implementation	System Admin	Database	System Admin	Data base security
Network Equipment	Scale-up	Customization		Security tools	Helpdesk	Operating System Security
Connectivity	PaaS			Internet connectivity		

Note: All mentioned estimated costs in below tables shall only be considered as reference to calculate TCO and CCA for this study.

7.1.1 SOFTWARE DEVELOPMENT COSTS (ESTIMATED)

Table: 7.1.1

7.1.2 DATA CENTER SETUP COSTS (ESTIMATED)

Software Development Cost Summary (Estimated)			
#	Category	Travel	Costs in USD
1	HR		US$132,923.08
2	Travel	4.00	US$3,846.15
3	Roll-out		US$6,923.08
4	Support (First Year)		US$12,000.00
	Total Cost	4.00	US$143,692.31
	Management Fee + Tax		20%
	Total Project Cost		US$172,430.77

Table: 7.1.2

Data Centre Setup (one time) (Estimated)		
#	Category	Costs in USD
1	2 Servers	US$17000
2	UPS	US$2500
3	Network Equipment	US$4000
4	Power/Network establishment works	US$3000
5	Data Centre Facility establishment works	US$5000
6	Data Centre Facility equipment	US$5000
7	Network Operations Establishment works	US$2000
8	Network Operations Equipment	US$2000
9	Data Backup Equipment	US$5000
	Total (Estimate)	US$45500

7.1.3 CLOUD SERVICES COSTS (ESTIMATED)

Table: 7.1.3

	Cloud Services - IaaS Cost in USD for 3 years (Estimated)	
#	Category	Costs in USD

	Cloud Services - IaaS Cost in USD for 3 years (Estimated)	
1	IaaS	US$18000
2	Backup/restore	US$900
	Total (Estimate)	US$18900

7.1.4 TRAINING SERVICES COSTS (ESTIMATED)

Table: 7.1.4

	Training Services Costs - Custom designed software (Estimated)	
#	Category	Costs in USD
1	End user	US$0
2	Super user	US$0
3	System Admin (Software side)	US$0
4	System Admin (System Level)	US$0
5	ToT	US$0
	Total (Estimate)	Included in SW Dev

7.1.5 SUPPORT / WARRANTY COSTS (ESTIMATED)

Table: 7.1.5

	Support /Warranty Costs (3 Years)	
#	Category	Costs in USD
1	Hardware (Servers, Network Equipment)	US$13500
2	Software (Software Development company)	US$24000
3	System Admin Support	US$9000
4	Cloud Management fee (Third party vendor)	US$6000
	Total (Estimate)	US$52500

7.1.6 SECURITY AND IT AUDIT SERVICES COSTS (ESTIMATED)

Table: 7.1.6

	Security and IT Audit Services Cost (3 Years)	
#	Security Services	Costs in USD
1	Data Center Environment	US$6000
2	Software	US$6000
	Total (Estimate)	US$12000

7.2 RED ROSE PILOT FEE

7.3 COMPARATIVE COST ANALYSIS

QUANTITY	DESCRIPTION	UNIT PRICE (CHF)	TOTAL (CHF)
1	**Hardware fees:** Paper voucher costs: 161,000 vouchers	0.055	8,855
1	**Service fees - data management system** (20,000-49,999) 47,000 bed nets distributed	2,500	2,500
1	**Training and in-country support (including travel days)** Hakan 12 days (27 July to 6th August) Cenk trip: 8 days (4th-11th August) @ 3,500 CHF and additional 13 days @300 CHF	7,400	7,400
1	**Transport Expenses :** Voucher costs: Cenk Salfur 2258.15TRY on 4th August	441.44	441.44
	TOTAL (CHF)		19,196.44

It is bit difficult to perform comparative cost analysis between two software where one was used as pilot and second needs development after planning, design and huge investments. To compare both scenario author has prepared estimated costs sheets based on required features identified by managers, volunteers, key stakeholders during after action review and learning workshop.

Author provided list of features to managers, supervisors, data analysts and volunteers to identify required features as "Must, Desired and Not Needed" from respective list of features.

These sheets are starting points for TCO and CCA (For more details about software features list please see Annex section 2.4)

To launch software service in organisation IT teams go through few important steps include; Procurement of hardware (Servers, Network equipment etc). Hire software development company (In case of homegrown software solution), or purchase ready made software according to need. Provision uninterrupted Internet connectivity for software environment, so users can access it from anywhere in the world. Provide training to users, setup secure environment for hardware and software. Other costs are also included in study i.e. License fee for software (Operating System, Databases, Applications), training of all type of users i.e. system admin, power user, master trainer, end user and support charges in case of hardware, software, databases etc.

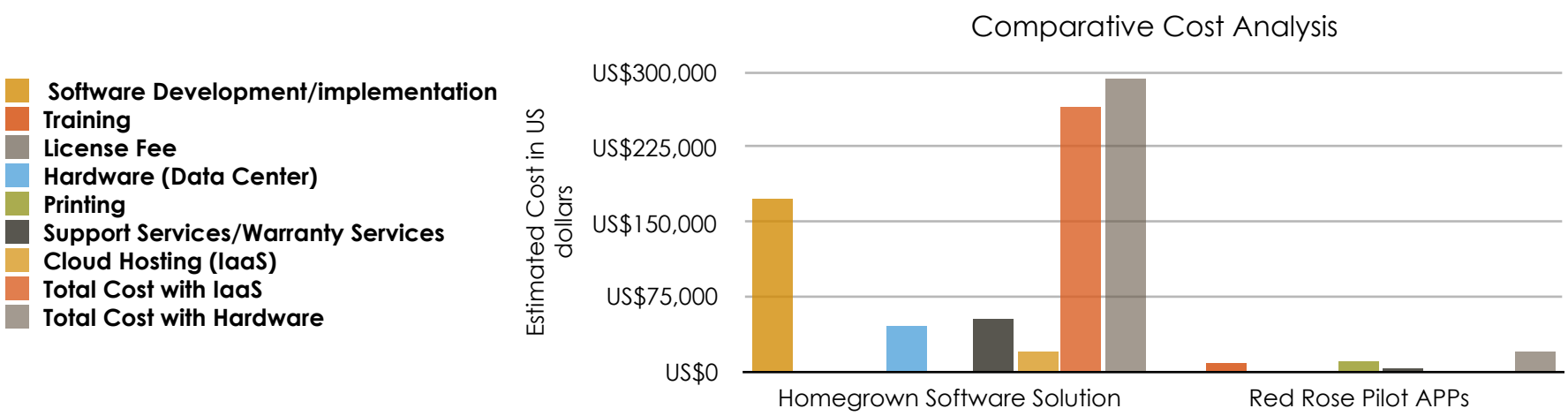
To calculate comparative cost analysis we considered above mentioned costs for both type of solutions (Red Rose apps fee for pilot and homegrown software solution costs).

Organizations can choose to hosting of Software solution on Organizational in house data centre or IaaS cloud (Infrastructure as a service) by third party. We have calculated costs for both scenarios. Please choose one while calculating costs.

Table: 7.3

Comparative Cost Analysis (In House vs Red Rose) — USD

Category	In House Software Solutions	Red Rose Pilot APPs
Software Development/implementation	172430.00	0.00
Training	0.00	7400.00
License Fee	0.00	0.00
Hardware (Data Center)	45500.00	0
Printing	0.00	9296.00
Support Services/Warranty Services	52500.00	2500.00
Cloud Hosting (IaaS)	18900.00	0.00
Total Cost with IaaS	265530.00	0.00
Total Cost with Hardware	292030.00	19196



8 CONCLUSIONS AND SUGGESTIONS

CONCLUSIONS

8.1 PROJECT SUCCESSES

- Red Rose pilot has been proven a success as usage of Red Rose saved time during project activities, promoted accuracy and ensured responsive use of data across multiple organizations include PRCS, IFRC and sharing reports with peer organizations.

- Overall project success rate is **97%** which shows effective use of ICT4Humanitarin tools is key to achieve better results. Involvement of skilled human resources is also important with ICT tools. It was not possible without proper planning at PRCS and IFRC programme management level. Involvement of Red Rose experts from inception, alignment with quality programmes were key factors of success.

- The significant progress has been around outcomes 1 and 3, where mobile data collection using Red Rose had been the popular and successfully administered functionality. Time saving was the most commonly reported benefit. Introducing Red Rose with QR Code process in data collection significantly reduced time compared with manual methods. Registration processes connected to outcome 2 have been used to authenticate individuals, reduce fraud and offer metrics to enhance responsive decision making.

- Data gathering, distribution of LLINs and data analysis using Red Rose was swift compared to ODK and PRCS-DMS. Projects activities (registration, distribution) with real time data analysis were only possible with Red Rose apps.

- Beneficiary registration using manual paper based data collection method takes 4-5 minutes per form. It became 1-2 minutes process using ODK forms and Red Rose made it less than 30 secs to 01 minute max. Printing of 1.2 million forms, manual data entry, digitilization of these million forms had costs and it took weeks to convert manual forms into digital version, deduplication, fraud detection etc were also extensive tasks but were easily performed by team using Red Rose apps.

- Red Rose apps saved costs by reducing the paper printing & handling costs, reducing digitization work etc.

- Red Rose functionality to locate beneficiary desired DP's location upon request also saved time for beneficiaries and volunteers, It was not possible with other apps and tools used in project.

8.2 LESSONS LEARNED

- Effective usage of ICT tools provided opportunity to achieve better results in less time and cost effective manner. Red Rose was key factor to reduce errors, increase efficiency & effectivity in data collection & data management with less cost. Having more features in Red Rose enabled users to perform well in different activities during Red Rose pilot.

- It was learned that Red Rose provided ease-of-use, easy to explain capabilities for every user.

- Red Rose early trained users were able to engage volunteers in data gathering activity after small session of training. Staff involved in data management activity using Red Rose were able to eradicate error in few clicks.

- Red Rose made it easy for users to complete registration & distribution in very less time with effective utilization of QR code coupon features.

- Look & feel of ONEapp by users were also found friendly, involving, easy to explain/teach. Users were confident on tasks completion using ONEapp.

- Users found ONEapp more supportive while performing project activities i.e. registration & distribution.

- Data analysis & data management was few clicks away from users of ONEplatform.

- Deduplication tasks were quite hectic tasks while using PRCS-DMS but Red Rose ONEplatform made it very easy for key responsible.

- The Red Rose pilot at PRCS is a model, it should be considered for replication in other areas. As it had been proven effective tool dealing with masses in emergencies.

- The approach of BYOD to carryout project activities was a good way to save time and to reduce financial overheads. It should be practice wherever situations and context permits.

- The approach of supporting a percentage of focal points from support and technical functions has been critical for success. In house Red Rose support team will enable IFRC, PRCS & National societies to rollout Red Rose beyond pilot.

- A multitude of training approaches, from webinars, training, workshops, online meeting will contribute effectively while producing Red Rose trained staff in other upcoming humanitarian delivery projects & programmes.

- After successful pilot project, there is a high level of confidence that IFRC, National societies will continue to use Red Rose in full scale.

- Having support from IFRC (HQ & country office Pakistan) and Red Rose team of experts while making them available online during project activities made it successful pilot project.

- Technology used behind Red Rose supports scale-up during bigger project activities in bigger scale in very less time and cost effective.

- Red Rose was found cloud ready software, easy to scale-up, full responsive software, engaging, easy to learn and teach. Adding more volunteers in a list of trained Red Rose resources will be easy task.

8.3 SUGGESTIONS & WAY FORWARD

- In the event that PRCS is interested in digitalization to start with Red Rose, some key considerations regarding budget for hardware, software licences and training should be in place. Support from IFRC and peer organisations; a combination of programme and technical support staff should be ensured. A starting point for IFRC staff should be to consider utilization of recommended and standardisation of Red Rose in upcoming projects and programmes.

- With realization of the growing number of humanitarian delivery projects Red Rose apps are surely a good toolkit with scale-up capabilities. Red Rose trained support team is always ready to support in different situations & contexts.

- Given the need to invest up-front in ICT4Humanitarian solutions, standard models involving ICTs and Red Rose that can be costed should be prepared in advance to allow PRCS teams to customise pro-forma budgets and insert ICTs into funding applications.

- All humanitarian field staff, programme managers and technical teams need to be equipped with knowledge and skills to use Red Rose, as ICTs are increasingly becomes a key component of humanitarian delivery and acceptable for donor compliance. It is not required for every team member needs specialist expertise, but at least needs to realize the potential and also be able to draw on findings as relevant to their primary work.

- Any future application of ICTs needs to be supported with dedicated programme and technical support staff time, accompanied by capacity building.

- It is important to make spaces to trial new tools. However, for large organizations planning for support and data interoperability, there is an important tipping point to streamline and select tools for standard processes. Despite the existence of some free tools, the training and capacity, customisations requirements present a high barrier to entry for their application in most contexts unless technical skills are in place and knowledge does not reside with few experts.

- Responsible data principles will continue to be a primary consideration guiding the uptake of good practice design in the adoption of Red Rose.

- There is high value in initiatives that prioritize learning across multiple contexts to build a picture of good practice in the adoption of ICTs. It is evident there is a need for global convening, organizing and circulation of learning, so measures such as communications opportunities need to be put in place for networks of staff using ICTs to thrive. Communities of practice take a great deal of work to keep alive and moderate, so Red Rose focal points will need to be proactive in opening spaces for learning which work for them.

- Need to have ICT4Humanitarian, ICT4D, ICT4DRR focal points in each national society and IFRC needs to have at least one in each region to support national societies in achieving ICTs effective utilisations in national society level. Same focal points will also be trained in Red Rose to start with exceptional in house support for Red Rose will utilized in scale.

- Focal points should be allowed to create training manuals, SOPs and arrange training seminars on site and online through webinars. To train more people on ICT4humanitarian tools, online FAQs, online discussions boards, online video content in local languages, online weekly or fortnightly meetings could be more productive & sustainable model.

- Focal points should be allowed to learn needs of organization with regards to ICTs with close coordination between programme managers, MEAL coordinators to provide with more inclusive approach from all key stakeholders.

- Building technology solutions for humanitarian needs, require longterm commitments with required budgets in hands as well as expertise in both technology and functional & operational level. Engagement with service providers like Red Rose will empower IFRC PRCS and other national societies. ICT tools allows to focus on their primary goals.

- Building technology solutions for humanitarian needs, require longterm commitments, budgets in hands with expertise in technology, functional and operational level. Engagement with service providers like Red Rose will empower IFRC, PRCS and peer national societies. ICT tools made by Red Rose will enable organizations to perform better on their primary goals i.e. Humanitarian Delivery.

- Red Rose tools may seem expensive but to design same level features & functionalities in any homegrown software solution requires huge investments, also required to engage software developers, data scientists, cloud computing professionals and functional experts. According to estimation 15-18 months time will be required to establish same features & functionalities in any homegrown software.

- It is recommended to hire expert with ICT4D & ICT4Humanitarian skills (desired) and ICT4DRR (good to have). The expert should have good technology and humanitarian sector experience. He/she should be part of bigger plan before choosing any ICT tools for humanitarian delivery programmes & projects.Engagement with ICT expert will make digitalisation more practical, effective, timely and sustainable at PRCS.
  It is recommended to engage one expert at regional level to provide support of Red Rose to IFRC and National Societies.

- IFRC with other National societies resource sharing will strategise digital move within PRCS at National, Provincial and Districts levels. Resource sharing may include technology & functional experts, guidelines for digital strategy, software toolkits with sustainable plans. After a successful implementation of project using ICTs tools, PRCS is increasingly considering ICTs as a fundamental component of humanitarian response.

- Involvement of ITO from IFRC Pakistan country office made technical troubleshooting easy & quick and It is recommended to involve technical experts from IS in any ICT tools utilization in programmes & projects.

- Hosting software service out of Pakistan will be challenging, it is recommended to host applications in country to mitigate any possible risk related to data privacy issues.

- The cost of software depends on above mentioned factors. Therefor it is recommended to choose Red Rose. Red Rose company is responsible for all major factors include software hosting & uptime, security, customization, training and implementation at client side.

- Before building customised software all above mentioned factor's cost (Section TCO) should be considered.

- Cloud hosting can reduce in house data centre management challenges but software support, security patches, upgrades, implementation, training will remain responsibility of organisational in house IT team & software development team in a case of homegrown software solutions.

ANNEX:

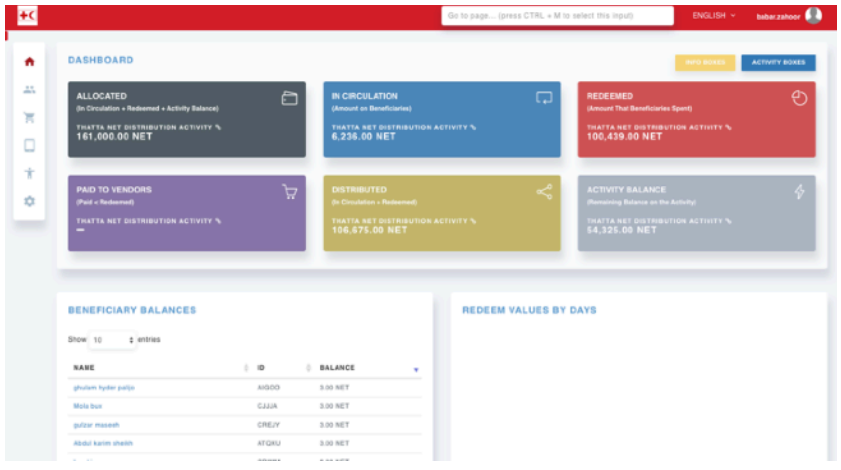
1 RED ROSE PLATFORM

1.1.1 ONEPLATFORM

ONEplatform" have two key components "**ONEapp**" and **ONEsolution**.

ONEapp an android app to gather data of beneficiary registrations, distribution of cash, NFI using QR code technology.

ONEsolution web application is designed for data management & analysis to manage all information at one place. It has latest data visualisation & analysis tools inside. It has features for humanitarian delivery projects like Beneficiary Management, Vendor Management, Programme Management, Financial management and Cash delivery



Volunteer scanning coupon to distribute LLIN

1.1.2 ONEAPP

The ONEapp is the designed to provide access different
users with different access rights. Each type of users will be given access to different features within the app. ONEapp ensures that there is a segregation of duties throughout the programme.

The ONEapp utilises GPS to track every transaction or attendance that is registered on the device. It allows for remote KPI analysis of transactions by geographical location. It also ensures that attendance and site progression entries are being taken at the correct locations, helping to reduce fraudulent activity. The app uses icons and pictures in order to be used by anyone with basic literacy skills.

NOTE: Literacy skills are only applicable to those people who are using the app, vendors, field staff etc. Beneficiaries do not need to have literacy skills to participate in any of the programmes supported by the ONEsolution.

1.1.3 ONESOLUTION

ONEsolution is designed To operate completely offline, with no need for Any additional manual data entry. The **ONEsolution** is a complete programme management system that provides an end to end solution for all modalities of Cash Transfer, DIK's and Voucher Programming. It has features like;

Preparedness
As part of an organisations humanitarian preparedness NGO's can easily acquire compatible android devices in anticipation of CTP in the first phase of an emergency.

Assessment
Using the ONEapp NGO's can quickly and simply conduct rapid assessment, including market assessments, vendor capacity assessment and initial beneficiary data registration. This data can then be analysed in the ONEplatform to asses if Cash or Vouchers are possible and appropriate.

Resource Mobilisation
Signing a contract for the specific programme type with the RedRose team will initiate the mobilisation of the RedRose technicians to the country programme. Where a 5-day rapid deployment training can take place.

Implementation
Using the ONEplatform, ONEapp and based on the assessment data one of the RedRose implementation modalities to implement a Cash or Voucher based response.

M&E
Using the ONEplatform and ONEapp for continual market monitoring and Post Distribution Monitoring survey completion, programme data can be quickly and easily analysed against programme indicators to ensure that targets are being met and the programme remain fit for purpose.

Name of Contributors:

Sr.No	Name	Country	Designation
1	Michael Belaro	Pakistan	CTP Delegate. IFRC
2	Abdul Basit	Pakistan	Senior Manager, Disaster Risk Management
3	Muhammad Ameen	Pakistan	Program Manager, Cash Based Intervention, PRCS
4	Muhammad Sajjad	Pakistan	Program & Disaster Management Manager, PRCS SINDH Branch
5	Muhammad Shariq	Pakistan	Program Officer, EMR, PRCS SINDH
6	Kanwar Waseem	Pakistan	Secretary, PRCS, PHQ SINDH
7	Imran Lodhi	Pakistan	ITO, IFRC Pakistan Country office
8	Joseph Oliveros	Swisterzland	IT Coordinator, IFRC Geneva
9	Justin Dell	UK	Country Manager, Afghanistan & Pakistan, British Red Cross
10	Zain Qureshi	Pakistan	Team Lead Distrcit Thatta

Photo Credit:

Michael Belaro, Babar Zahoor

P.O. Box 303 | CH-1211 Geneva 19 Switzerland
Telephone: +41 22 730 4222 Telefax: +41 22 733 0395 | E-mail: secretariat@ifrc.org | Web site: www.ifrc.org