



Always There



**KENYA RED CROSS SOCIETY USING
NEW TECHNOLOGY TO REACH COMMUNITIES
IN HARDSHIP AREAS**

Drought Situation in Kenya

USE OF ELECTRONIC CASH VOUCHERS TO SUPPORT FAMILIES AFFECTED BY DROUGHT IN MARSABIT COUNTY, KENYA 2017

In Kenya, major droughts occur about every 10 years, with moderate droughts occurring every 3 to 4 years, mostly in the 23 Arid and Semi-Arid areas (ASALs). The ASALs have the lowest development indicators and the highest incidence of poverty in the country. The Government of Kenya declared drought as a national disaster on 10 February 2017 following the release of the Short Rains Assessment (SRA) conducted in the affected counties by the Kenya Food Security and Steering Group (KFSSG). The SRA confirmed that the number of people in need of humanitarian assistance dramatically doubled from 1.3 million people in August 2016 to 2.6 million people in February 2017 and is likely to increase as a result of drought. The current drought had its worst toll in Marsabit County, the largest county in the far North with a population of 334,277 people (66,850 households) whose source of livelihoods is purely nomadic pastoralism. The County was exposed to higher than average food security threats that included poor distribution of short and long rains, depletion of pasture, livestock diseases, high livestock mortality, acute shortage of water, limited access to livestock market, intra and out migration of livestock, low underground water recharge for boreholes and shallow wells, water pans and broken down boreholes.



It is an awful and disturbing encounter with real face of hunger and starvation in Illeret and surrounding villages of Elmansich, Iomadang, Ilolo, approximately 450 kilometers from Marsabit town. The population is traumatized by endemic starvation caused by the drought in Kenya with disturbing scenes of both young and elderly people crawling out of their low tiny huts too weak to stand. One of the affected 28 year old Mr. Yier Bokoch, crawled out of his tinny hut but could hardly take three steps before taking a deep breath and rest. His young and only wife equally weak told us that Yier is not suffering from any ill health but he has not had any meal for days due to lack of food in their household. Many elderly people and young children lay still on the bare ground under hot scorching sun with no trees to provide shade. Children are severely malnourished and shallow wells that are the main source of water have dried up.

The scorching sun is heating the bare ground with lots of carcasses of animals (camels and shoats – goats and sheep) scattered all over, as a result of drought. Adan Sora, a pastoralist says “this has been the toughest moment in my life since I have lost all my 500 shoats to the drought. I am left with nothing to depend on and I do not know how I will survive with my family not even where to begin from since this was my only source of livelihood.” He narrated in a faint voice with little energy and face of hopelessness.



DROUGHT EMERGENCY RESPONSE BY KENYA RED CROSS SOCIETY

The Kenya Red Cross Society (KRCS) applied various approaches including cash transfers, nutrition outreaches, livestock de-stocking, Water SH and food distribution to support the most vulnerable drought affected communities.

Cash Transfer Programming (CTP) is rapidly gaining recognition and acceptance as an alternative response option among humanitarian actors and KRCS is no exception. Approximately 70% of Kenya Red Cross Society's response to drought has been through cash transfers to the affected populations in Kenya. This is the largest response the organization has carried using cash in emergency at scale and applying different modalities ranging from electronic vouchers, mobile money (M-pesa) and banks in various drought affected Counties. The modality chosen for every County was based on thorough assessment of the available payment mechanisms and market analysis. The move by KRCS was in line with the globally growing recognition that electronic payment (e-payment) systems have the potential to provide more efficient and reliable delivery of cash payments than manual cash-in-envelope systems.

North Horr and Laisamis Sub Counties in Marsabit County, Kenya are among the worst affected areas by the drought and without adequate infrastructure. The areas are characterized by poor roads or no road network through vast stretch in deserts, poor or no mobile phone networks at all, very low mobile phone ownership and use among the communities, high insecurity with many cases of banditry and inter-ethnic conflicts, no banking systems except in Marsabit town which is approximately 400 km from the community. The option for delivering assistance therefore was either through in-kind distributions or cash-in-envelops. Despite the poor infrastructure, a quick analysis of the local and supply markets showed that the markets were still functioning and could support cash assistance. Coupled with the community's preference for cash, KRCS carried out a response options and risk analysis to determine the best response option.

Unconditional Cash Transfer (UCT) with unrestricted end use of monthly cash transfers was used to cushion the communities against negative coping mechanisms like sale of household assets. The monthly cash transfers would assist the households to meet the nutritional needs of daily caloric intake for an average of six (6) persons per household, estimated to correspond to some 40% of the basic food needs, valued at 3,000 Kenya Shillings per month, per household (approximately USD 30).



THE ELECTRONIC VOUCHER PAYMENT SYSTEM

Compulynx Payment Service Provider, an IT Company was identified through procurement process that involved identifying and contracting the payment service provider. Given the limited time to begin the emergency response to the drought affected communities, KRCS opted to single source the payment service provider, Compulynx whose costs were relatively low and would leave with the organization the hardware components that could be used in future response with a similar technology. However, it still took one and a half months to set up the payment system and operationalize payments to affected households. The transfer modality embraced the use of smartcards and biometric registration of beneficiaries in a system setup able to work offline during payments and online since the remote target areas of Marsabit have low network coverage for internet and mobile phone networks.

The e-voucher payment system had both software and hardware components: The software components were seamlessly integrated tools like web-based information management system, multi-purpose application for android Point-of-Sale (PoS) devices for both online and offline operations and data collection application, Wi-Fi connectivity for synchronizing data to the backend platform of the system. The hardware component on the other hand, included Near Field Communication (NFC) smart cards/electronic vouchers, android PoS device tablets with finger print scanner and camera, SD printer with smart card encoder, colour ribbon, blue tooth device, ID/voucher scanner, and bio-licence for deduplication. Setting up the payment system involved a number of activities ranging from procuring point-of-sale (PoS) devices and near field communication NFC smart cards, Card printer, printing ribbons, creating a backend database, identifying and contracting local vendors, training KRCS staffs, volunteers and vendors on the payment system, registering beneficiaries' biometric data and printing smart cards in readiness to begin the payments.

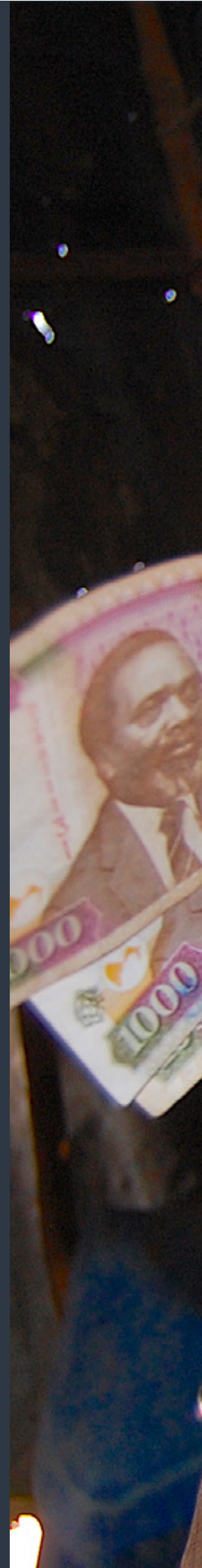


TECHNOLOGY PROVIDED EASY AND QUICK CASH TRANSFERS IN REMOTE AND HARD TO REACH AREAS WITH HIGH ACCOUNTABILITY

KRCS staff and volunteers were trained by the Payment Service Provider on the new technology. The volunteers identified the target households through community based targeting approach guided by clear inclusion and exclusion criteria and registered the household heads (preferably women) by capturing their names, national identification numbers, phone number (if any) ward and village. During registration, the household head was required to present a national identification card and those who did not have were identified by the local leaders, chiefs and the community before they could be registered. The volunteers supported in entering the household data into an excel sheet. The data was then shared with Compulynx Company for upload into the payment system backend platform to create a database and generate a unique identifier where every household head was linked to a smart card. The KRCS staff printed the smart cards customized with the data of the household heads on the face of the card for all the registered households. The volunteers mobilized all the registered households to capture their biometrics, in this case, finger prints and passport size photo of the households' heads, and synchronized them with the printed smart card using the unique identifier generated from the Compulynx system to create respective household accounts in the payment system. The cards were given out to beneficiaries under instructions to keep safely for the subsequent payment process.

Local vendors were identified through KRCS procurement procedures from the local communities, contracted and trained on the new technology to support in carrying out the cash transfers. One had to come from the local community, have cash capital to transfer to the targeted households, be accepted by the local community and willing to participate in the KRCS cash transfer programme. The KRCS Operations staff acted as the link person between the vendors and payment service provider. An email communication to compulynx would authorize a top up of all the beneficiary smart cards in the payment system and the vendors would be alerted to carry out the payments in the presence of KRCS volunteers attached to each vendor using the electronic vouchers. Each vendor was given a unique username name and code to ensure he/she is the only one who can access the PoS and make a transaction. The vendor would log into the device and connect to internet to update the master database for beneficiaries and top ups, then log off in readiness to effect payments offline.

The household heads of the beneficiary households would present their smart cards to the vendor and their finger prints get verified through the PoS device before the payment is made. The payments have to be made in the presence of a local KRCS volunteer and the beneficiaries have to sign or put a thump print on the payment schedule as a confirmation that they have received cash from the vendor. After making all the payments through the PoS, the vendor would later connect the device to internet and upload the transactions. Once the transactions are uploaded, the Operations Cash Focal staff can log into the payment platform and monitor the status of payments from all vendors including pulling out reports for further analysis. The vendor would then prepare an invoice against the total cash transferred to the households and KRCS would verify the amount against the system captured payment and transfer the invoice value to the vendor's bank account in readiness for another round of cash transfer, and the cycle continues every month.





Kamrya
MASSAET COUNTY CTR
WESTE LOMACHAMANA LOMANO

Name: KAMRYA
ID No: 774
Sex: F
Age: 77
Address: MASSAET
District: WESTE LOMACHAMANA LOMANO

774

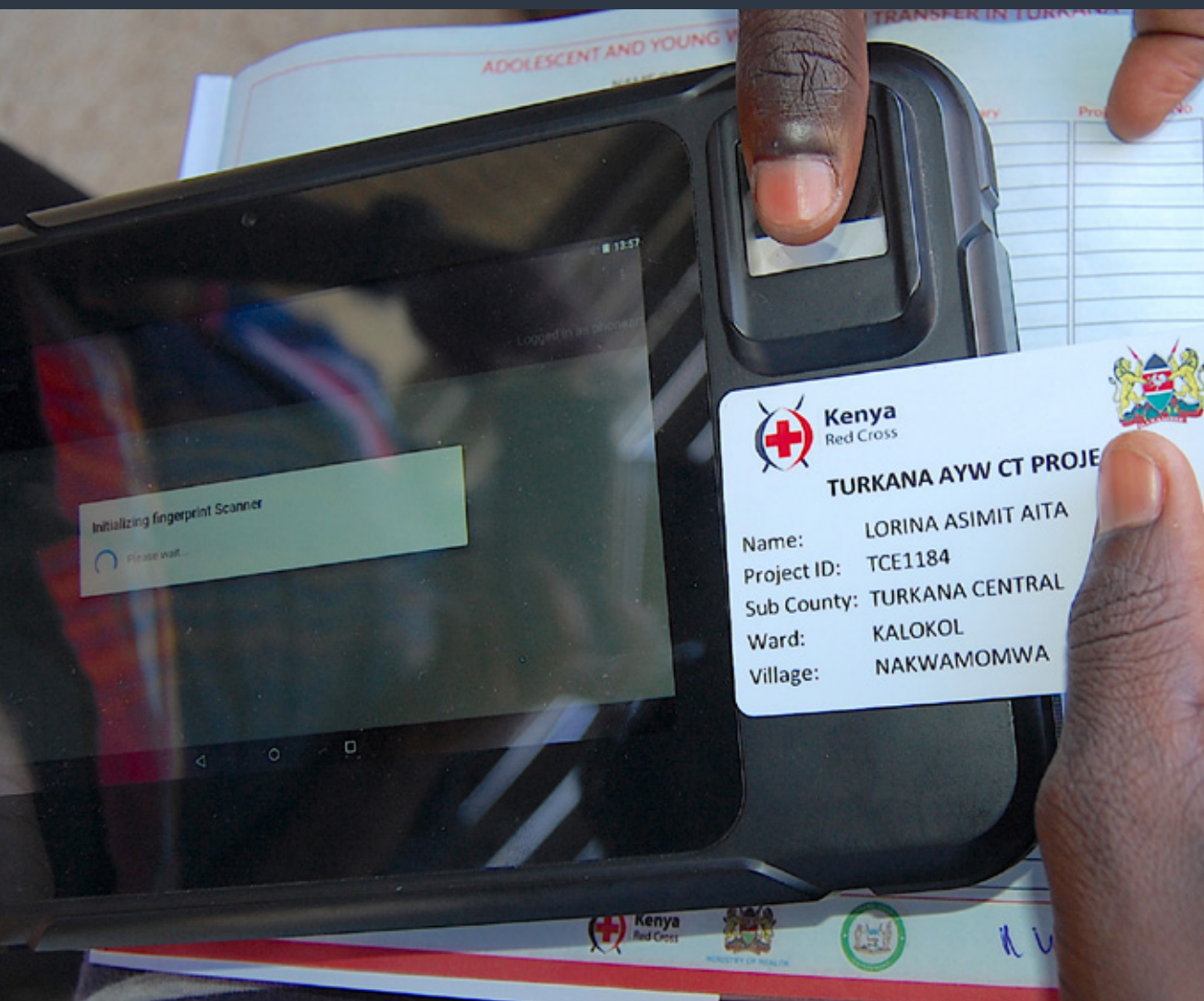
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KENYA RED CROSS SOCIETY VOLUNTEERS EMBRACING TECHNOLOGY (TECHNOLOGY AMBASSADORS)

In an effort to build her capacity in disaster management operations, Kenya Red Cross Society took a journey towards institutionalizing CTP beginning with a comprehensive organizational CTP capacity assessment way back in October 2015. The assessment explored KRCS capacity to deliver cash at scale during emergencies and comprehensively analyzed areas that needed to be strengthened to make the organization 'cash ready'. Key recommendations were then brought forth including strengthening staff and volunteer capacity in cash transfer programming, empowering cash focal persons, develop guidelines and procedures for CTP, making pre-agreements with payment service providers, exploring alternative technologies as well as broadening the cash culture within KRCS and across departments so that it's not only seen as DM operations tool but used in various sectors of the organization. In implementing the recommendations, Disaster Management Operations team have developed the CTP Standard Operating Procedures, various guidelines and trainings to staffs and volunteers in cash transfer programming and disaster management. The use of technology was piloted in the drought response operations in various Counties with e-vouchers in Marsabit County. The trainings have been purposive to develop a surge capacity response team called National Disaster Response Team (NDRT) who can be deployed at any time to lead response operations within the Country.

Murgor, a NDRT member was deployed to Marsabit to lead the drought response operations and the volunteer with enthusiasm picked up the new technology to its success in delivering humanitarian assistance in hard to reach areas. He mentored a team of volunteers in Marsabit County as technology ambassadors who assisted the local vendors in addressing technological hitches in the electronic voucher payment system using Compulynx technology. This was achieved through the support the team got from DM Operations and Compulynx by creating a youth friendly social media based "WhatsApp" group where the volunteers attached to the local vendors would raise real time technical hitches vendors encounter with the technology and CTP Focal staff and or Compulynx technical staff would pick up the technical problem and guide the volunteers through on how to correct the hitch. This way the volunteers were mentored to master how the technology works and how to trouble shoot the technical challenges.



OUR EXPERIENCE

The e-voucher transfer made it easy for Kenya Red Cross Society to reach drought affected communities in remote and hard to reach areas with relief support at reduced costs. This payment system capture beneficiary biometrics like finger prints and passport size picture and save in a back end database system and payments can only be made against the saved database of the beneficiary, therefore, ensuring that the right targeted people receive the cash transferred with improved transparency and accountability to the communities (Strong Authorization of Transactions). This is made possible because the smart card has an embedded chip giving them NFC properties and ability to store beneficiary data that is used for verification before payment is made.

The cash transfers were done through the local vendors thereby enhancing community participation in the response and transferring the risks involved in transporting large amounts of hard cash. The e-voucher was used as a form of identification once issued and this allowed KRCS to support all the vulnerable groups once they are identified either by national identification card or through community vetting and given a smart card linked to their biometrics. Most vulnerable community members like the aged, chronically ill and child headed households miss out on humanitarian assistance because they lack the identification documents.

The set-up of the e-voucher took quite some considerable time, but once set up the payment system was very easy to scale up with minimal costs to meet the increasing number of people in need of support as drought effects worsened. The PoS devices were portable allowing vendors to carry them to any area where the pastoralist communities have moved. The system provides an easy way of monitoring the payments progress by vendors to the beneficiaries. The most important benefits that were noted for the e-payment system include improved security for staff and recipients; reduced leakage; improved reconciliation; greater speed and efficiency of transfers; and reduced costs for KRCS and recipient. However, there were barriers to the use of the new technology ranging from technological, financial, institutional and operational factors.

Technological barriers included limitations in agent coverage and cash flow for e-voucher payments; gaps in mobile network coverage to upload transactions, error rates of biometric technology during registration and payments especially with finger prints and failure of urban-set technology versions failing to work in rural and remote areas.

Financial barriers included lack of resources for investment in the new technology, the best scenario would be to buy the technology software and manage it at KRCS IT department just like the MPESA payment system is currently being managed at the organization's finance department.

Institutional barriers experienced were resistance to new technologies and preference for conventional methods of cash transfers like cash in envelopes that carry a lot of diversion risks; time and effort to adopt new systems; and low levels of recipient literacy and education also remain important constraints.

Operational constraints experienced when using the electronic voucher payment system included limited availability of time and resources to research, cost and select an appropriate technological solution, and the time required to negotiate contracts when the operations team are in response mode, set up and test new systems, and train staff adequately (including simulations/piloting to develop operational skills and trouble shoot problems); low take up of and use of the new technology by staffs, volunteers and vendors to make transactions.

THE LEARNING AND FUTURE OF ELECTRONIC VOUCHER PROGRAMMING AT KENYA RED CROSS SOCIETY

Under the right conditions, e-voucher payment systems offer a promising way to deliver aid to recipients with speed, precision and flexibility in challenging environments like Marsabit County. In areas where emergencies are chronic or recurrent, there should be a deliberate move, before the next crisis, to develop pre-agreement engagements with service providers and financing models to meet costs of investment and for preparedness frameworks, between donors, agencies and the solutions providers. This should go further to capacity build staffs and local volunteers who would become good ambassadors of the new technology for its optimum use during emergencies.



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