



KENYA RED CROSS

# INNOVATION

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## COMING SOON



Kenya Red Cross Staff and Partners during the Innovation Lab launch in Lamu.

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Architectural render of the Innovation Lab.

## INNOVATION UNIT

The KRCSS Lamu innovation lab is currently under construction in Hindi, Lamu county. Funded by the Qatar Red Crescent, the Lab will provide space where the community members can design, create and develop innovative solutions to challenges in their communities. The lab will also use innovative tools to complement their traditional artistic skills.

# INNOVATIVE APPROACHES TO PREPAREDNESS AND RESPONSE:

Preparedness and response are critical areas for Kenya Red Cross, therefore the application of innovations in these areas is equally important. Through our partners, we have been able to adapt innovative tools

and approaches to improve preparedness and response efforts in line with emerging challenges.

## USING DRONES FOR DATA COLLECTION

The KRCS Remotely Piloted Air Systems (RPAS) unit was established through a partnership with DAC Aviation and Altohelix Corporation alongside key stakeholders such as the Kenya Civil Aviation Authority (KCAA) and the Kenya Defence Force (KDF). The Kenya Red Cross (KRCS) has been and continues to operate under a temporary license from the authority which allows the society to carry out its core mandate concerning disaster preparedness, response, mitigation, and documentation. The unit has so far managed to train 15 pilots internally on both DJI Mavic and WingtraOne drones with continuous practice sessions. The unit has carried out missions respective to specific use cases such as institutional documentation of the Lamu rehabilitation center and soon to be innovation lab, mapping of the Dadaab



IFO2 refugee camp, crop health monitoring of farms in Magarini and Garashi in Kilifi County, flood risk mapping in Mosiro - Narok, as well as search & rescue during floods in Moyale 2019 and the landslide experienced in West Pokot in late 2019. The team is currently working on finalizing a learnings document based on the use of case missions carried out in 2019

## AIRBUS SUPPORTS AIRLIFTS OF NFI'S TO FLOOD VICTIMS

On the 10th of December 2019, thanks to Airbus Helicopter, the KRCS response team was able to reach 108 households in Iresaboru, Isiolo county, through the existing partnership and MOU with the Airbus Foundation. The helicopter was operated by Airbus and transported Non-Food Items to the affected families, who were cut-off from any access due to floods for 10 days. Such a response supported by partners grows the KRCS strength and ability to alleviate human suffering.



## USING SATELLITE IMAGERY TO MONITOR FLOOD EFFECTS

Thanks to the Airbus Defense and Space Center, the KRCS team trained on satellite imagery was able to monitor the floods situation in Tana River, West Pokot, Turkana, Moyale and other affected areas in Kenya using images acquired from various satellites. These images assisted in understanding the impact of damages from the floods and supported in planning response activities during that period in late 2019. The innovation team worked closely with the Geographic Information System (GIS) team, the Emergency Ops team and the Airbus team to acquire the radar and optical images of the affected and vulnerable areas. The data collected is also stored as an archive that would later be utilized to inform recovery activities.



# PLASMA WATER PURIFICATION SYSTEMS INSTALLED IN MUKURU SLUMS

Thanks to the MOU with the Airbus Foundation, Water purification systems designed and developed by AIC technologies that are based in Chile. The project funded by the Airbus Foundation saw the water purification systems installed in Mukuru, a slum within Nairobi's environs. The slum experiences a major challenge of lack of access to safe water. The project aims to improve the quality of life for sustainable development and reduction of water-related illnesses faced by the community through the provision of safe drinking water and improved sanitation.

Plasma Water Sanitation System is a water purifying technique that eliminates 100% viruses and bacteria

in water through the transformation of a continuous stream of polluted water into non-thermal plasma.

Under the partnership, KRCS Innovation Unit under ICHA, together with the WASH department are set to pilot 7 units with the first 3 sites identified as Mukuru Primary School, Gatoto Primary School, Mukuru Kwa Njenga Primary School, with installation planned for January 2020, and 4 sites currently under further evaluation. The project commenced in March 2019 and set to conclude by June 2020.

# DIGITAL INNOVATIONS: 121 SYSTEM AND DIGID

The Innovation unit is currently implementing two projects on Digital Identity under two separate partnerships: one with British Red Cross, Netherlands Red Cross and Global System for Mobile Communications (GSMA), while the other with the International Federation of the Red Cross and Red Crescent. With GSMA, the Netherlands Red Cross 510 team has designed a 121 system that

stores beneficiary data and is controlled by the beneficiary, to ensure vulnerable community members are equally attended to during disasters with Cash Transfer, but also for those without National IDs. The project is currently under the design phase to incorporate community feedback and also ensure the interest of both users has been considered including the donors.

# CAPACITY BUILDING: COMMUNICATION STRATEGY WORKSHOP

A communication workshop with staff from the Innovation Unit and the Communication department was facilitated by the Airbus Foundation and Ketchum UK to understand the communication plan for the soon to be launched Lamu Innovation Lab. Ketchum UK Partner, Insight and Strategy Director, Ruth Yearley and International Director Airbus Foundation, Hania Tabet inspired Kenya Red Cross staff during the Positioning and Communication Workshop organized by ICHA. The two-day comprehensive workshop held from 23rd to 24th October provided an in-depth look at designing a compelling message to increase knowledge and awareness of the KRCS Lamu Innovation Lab



# DESIGN THINKING WORKSHOP WITH DANISH RED CROSS ON WASTE MANAGEMENT

The innovation team together with the Urban Resilience Project team also contributed to a design workshop on waste management in Mukuru, facilitated by the Quercus Group organized by Danish Red Cross. The outcome of this project was

a well designed and thought out waste management project in Mukuru which was submitted for the next phase in the Danish RC innovation pool fund.

# INNOVATION CHALLENGE ON CHOLERA PREVENTION

On the 30th of October 2019, a call out for ideas went out on the Cholera Prevention Innovation challenge, which received 20 submissions by 11th November 2019. The submissions were then shortlisted to 7 teams that came for a pitch round on the 15th of November and the final 3 teams were then incubated from the 18th of November to the 29th of November at Swahilipot Hub (partner of the challenge). The final teams were taken through mentorship on how to improve their pitch, develop business models and develop prototypes. Under Pwani Innovation week, the 3 final teams presented their final pitches in front of a panel of judges on the 4th of December, with the winning solution identified as the Sover team, an IOT solution that detects overflow of sewage water lines. The winning solution will be implemented within the Jomvu sub-county under the existing Health Project in 2020 and set to complement existing KRCS efforts in the area to reduce cholera outbreaks.



## ABOUT THE INNOVATION UNIT

The Kenya Red Cross defines innovations as processes and products that use locally available resources (materials and persons) to provide solutions to existing challenges/risks/vulnerability/needs in our communities. KRCS works with communities at a grassroots level for community engagement and sustainable interventions.

The innovation unit hosts all innovation projects and innovative components within the society for better management, planning, coordination, and implementation. Innovation is one of the core values of KRCS, that states: We will create opportunities and creative solutions: we will continue to identify and explore uncharted opportunities for growth and sustainability, mitigate risks and provide the best humanitarian services that we can.

