



Republic of Uganda

Natural Disaster Early Warning System
(7UGA11006)



BACKGROUND

Natural disasters are on the rise. However, telecommunications/ICTs play a critical role in disaster risk reduction, prediction, preparedness, mitigation and response. As when appropriately deployed, modern technologies can significantly reduce loss of life, injuries and destruction to property. In this regard, ITU supports countries across the globe in deploying ICTs for disaster preparedness and response financed through solid partnerships forged with governments, local communities and the private sector. As a country suffering from onset flooding and mudslides, Uganda benefitted from this project which established a “Natural Disaster Early Warning System” in selected areas that had previously been adversely effected from natural disasters.





WHY WAS THE PROJECT NEEDED?

Uganda experiences heavy rains that cause both flash and slow onset floods. Besides causing death due to drowning, floods destroy public health facilities such as water sources and sanitation facilities. Floods also trigger outbreaks of water borne diseases and malaria, hence compounding community vulnerability to health hazards.

For many years, the Butaleja District in Eastern Uganda has been ravaged by flood waters and mudslides from the River Manafwa. There were no ICT based dedicated system for alerting the population on impending disasters. As a result, people were displaced and infrastructure destroyed. To help address the situation, the Government of Uganda, with the support of the International Telecommunication Union (ITU), installed solar powered Flood Early Warning Systems to warn residents of raising water levels.

PARTNER

Uganda Communications Commission (UCC)

www.ucc.co.ug

Ministry of Information and Communication Technology, Uganda

www.ict.go.ug

The Uganda Communications Commission (UCC) is the country's regulator of the communications sector. UCC was established in 1998 by the Uganda Communications Act (Cap 106 Laws of Uganda) to facilitate and enable the development of a modern communications sector and infrastructure in the country.

In an effort to address the situation, the Ministry of Relief, Disaster Preparedness and Refugees of Uganda adopted a comprehensive process of developing a policy that details mechanisms and structures for the effective and practical management of disasters. In order to alert the public in a timely manner, the policy recognizes the role of ICTs. An ITU mission was undertaken to Uganda in August 2011 during which a tri-partite meeting was held between ITU, UCC and the Ministry of Relief, Disaster Preparedness and Refugees. Derived from these consultations, ITU and UCC established a pilot early warning project in November 2011.



OBJECTIVES

01

In the case of a natural disaster, prevent loss of lives and minimize damage to the critical infrastructure through deployment of early warning systems

02

Enhance public safety and information dissemination in the selected disaster prone areas

***His Excellency
Mr John NASASIRA***

***Minister of Information and
Communication Technology,
UGANDA***



***"This early
warning system is
a welcome relief
for the people of
Butaleja District
who have for
years lost lives
and property
because there
was no flood
warning"***

Quote made in 2014

RESULTS

The project was able to save lives and increase public safety as the early warning system made it possible to warn affected communities in the case of a natural disaster. The project made available two early warning centres in eastern Uganda.

- The first flood warning system was installed on 22 September 2014, on the Namulo Bridge in Butaleja District.
- The second flood warning system was installed in Butaleja District on 5 January 2015.

2 early warning centres in eastern Uganda

"This project is in line with Uganda's National Vision 2040 which identifies ICTs among key foundations to spur Uganda's transformation into a modern and prosperous economy,"

Mr Godfrey Mutabazi,
Director,
Uganda Communications
Commission

MAIN ACTIVITIES

Identification of stakeholders, including at

local level

1

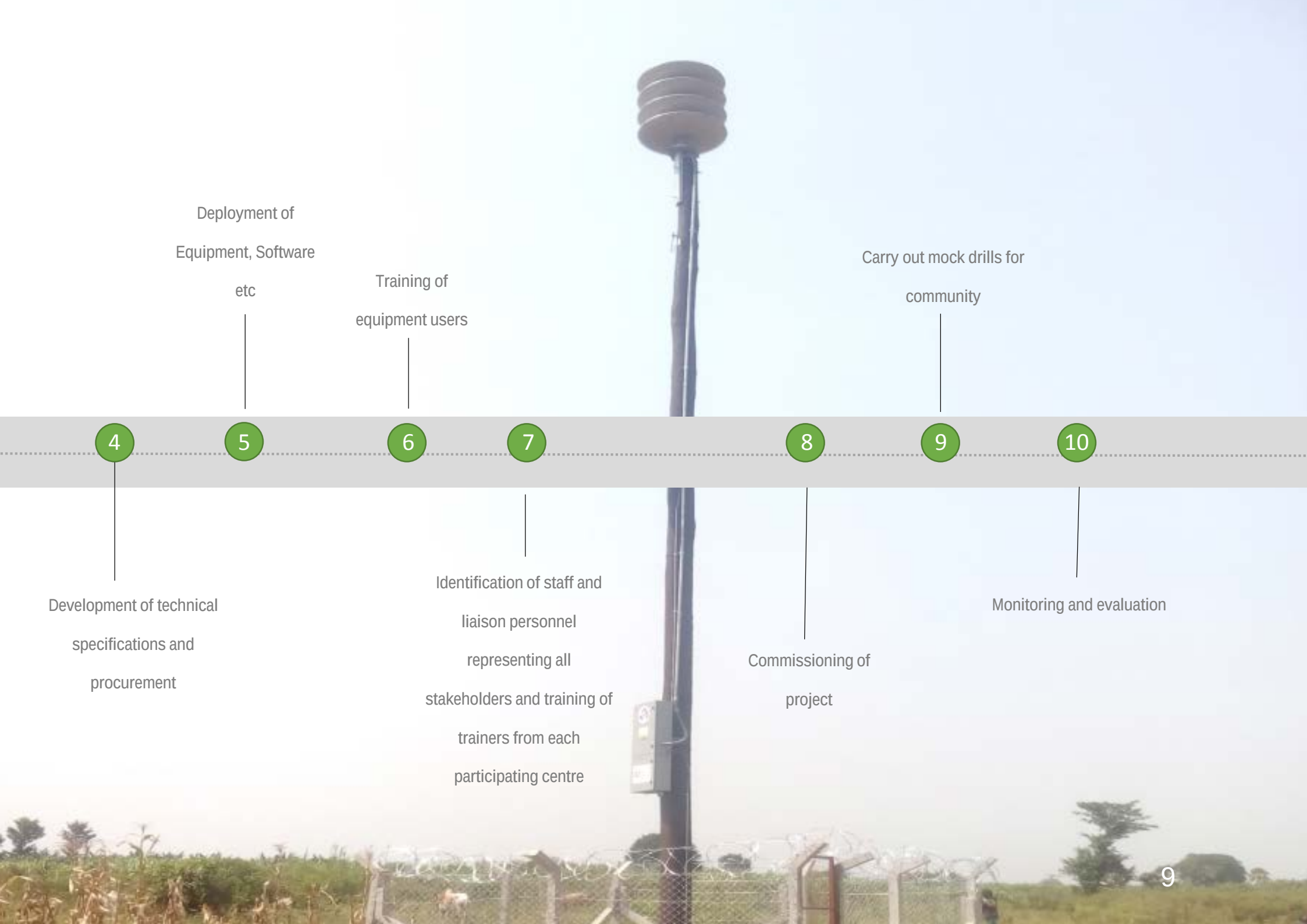
Identification of
project location

2

Identification of suitable premises

3





LESSONS LEARNED

- In the immediate aftermath of disasters, ICTs ensure a timely flow of vital information that is needed by government agencies and humanitarian actors to respond to the disaster. ICTs also facilitate the exchange of information between local communities and government agencies.
- The project was very viable as there was a strong political will and commitment. UCC provided all regulatory requirements and network services to ensure the successful execution of the pilot project. UCC organized coordination meetings to ensure that all parties are consulted and that they work together within agreed time lines.
- To ensure sustainability, training was provided to both users and technical staff.

RISKS

- The project had to be implemented before the rainy season as heavy rains could have resulted in floods and mudslides delaying the project.
- Poor communication and insufficient awareness-raising about the benefits of the system, could have received little population support. Workshops for stakeholders, as well as electronic and print media were used to educate and inform the public.
- For the successful implementation of this project, strong operating procedures were needed to be in place. ITU assisted UCC and the disaster management agencies to develop Standard Operating Procedures that were used for this project.

CONCLUSION AND RECOMMENDATIONS

Emergency telecommunications is vital for disaster prediction, detection, alerting and response. In the immediate aftermath of disasters, ICTs ensure timely flow of vital information that is needed by government agencies and humanitarian actors responding to the disaster. ICTs are also crucial by coordinating logistics such as the delivery of medicines, food, and shelter to the affected population.

The ITU Telecommunication Development Sector considers emergency telecommunications an integral part of the development agenda in the post-2015 period and is working hard to ensure a natural link between ICTs for development and ICTs for disaster management.

ANNEX

PROJECT MISSION PICTURES

