

## United Republic of Tanzania and Kenya's simulation of Rift Valley fever outbreak yields valuable lessons

Case Study



## Abstract

The East African Partner States include Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda. When a disease outbreak occurs across international borders or simultaneously within two or more East African partner states, the East African Community (EAC) Secretariat plays a coordinating role. As part of its regional contingency plans for public health security, the EAC Secretariat took part in a field simulation exercise, at Namanga which is located at the Kenya-Tanzania border in June 2019. The exercise was responding to a simulated “outbreak” of Rift Valley Fever. The cross-border exercise took over one year to plan and involved close to 300 participants. During the exercise, there were accurate assessment reports. There was also excellent cooperation and coordination across borders. However, there were difficulties in operational communications flow, following sample handling procedures and working with suspected ‘infected’ animals. Recommendations made to improve preparedness capacities included the dissemination of available operating procedures and plans, training of staff and responders at all levels on operating procedures, defining the role of each sector in the One Health context, and having a clear risk communication and community engagement strategy.

## Description

### Process

**Purpose:** The East African Community, with partner states Burundi, Kenya, Rwanda, South Sudan and Uganda, has a “Regional Contingency Plan for Epidemics due to Communicable Diseases, Conditions and other Events of Public Health Concern 2018-2023.” They drafted this plan to develop the region’s health security and preparedness capacities. Part of of this plan recommends partner states to regularly train and test front-line health workers on responding to public health threats. To test this recommendation, the EAC Secretariat held a full Field Simulation Exercise (FSX) in June 2019 in Namanga, a border–town between Kenya and Tanzania.

The FSX, as a type of simulation exercise (SimEx), is one of the key voluntary activities documented in the International Health Regulations (2005) Monitoring and Evaluation Framework (IHR-MEF). A SimEx can help develop, assess and test functional capabilities of emergency systems, procedures and mechanisms to respond to outbreaks or public

health emergencies. By participating in a FSX, stakeholders can identify staff training that will help close gaps in preparedness and response. Such exercises develop IHR capacities and innovative communication methods. Descriptions on the FSX and its results are available from the *Post Exercise Report*<sup>1</sup> and *Lessons Learned from a Cross-Border Field Simulation Exercise between Kenya and Tanzania*.<sup>2</sup>

The Namanga FSX tested the East African Region’s preparedness capacities. These included: i) early warning and event detection mechanisms at points of entry, ii) deployment of national rapid response teams, iii) activation and positioning of mobile laboratories, iv) regional procedures for cross-border pandemic preparedness and v) risk and crisis communication that incorporates a community engagement component.

<sup>1</sup> [Cross-border Field Simulation Exercise Documents \(https://www.eac.int/documents/category/cross-border-field-simulation-exercise-documents\)](https://www.eac.int/documents/category/cross-border-field-simulation-exercise-documents) Accessed 30th January 2021

<sup>2</sup> [Lessons Learned from a Cross-Border Field Simulation Exercise Between Tanzania and Kenya Namanga, 11th to 14th June 2019 - Testing regional preparedness and response capacities to a fictitious outbreak of Rift Valley Fever in Kenya and Tanzania \(https://www.giz.de/en/downloads/giz2019-en-lessons-learnt-africa.pdf\)](https://www.giz.de/en/downloads/giz2019-en-lessons-learnt-africa.pdf) Accessed 30th January 2021



***“The EAC Secretariat wanted to hold this exercise to assess our ‘preparedness’ in the region for any potential outbreak, which could quickly spread across borders and also across the region. We also wanted to test regional and national contingency plans, our regional risk and crisis communication strategy, and Standard Operating Procedures to see where the gaps were.”*** Michael Katende, Acting Head of the Health Department at the EAC Secretariat.

***Planning:*** The EAC and its partners adopted a One Health approach, involving different disciplines and sectors in pandemic preparedness and response. The participants were directly affected by an outbreak or could contribute to preventing it or mitigating its impact on society.

The EAC Secretariat, with partners, planned the FSX over 18 months. Nine months before the FSX occurred, participants conducted a table-top exercise focused on coordination among EAC officials, representatives from East African ministries (health, agriculture, tourism, trade, environment and defence), private industry, public health experts, community and religious leaders, the military and the police. This type of exercise helps to evaluate a country’s capacity to prevent, detect and rapidly respond to public health risks. The EAC has prioritised enacting such a framework.

Almost 300 participants took part in the FSX over four days in June 2019. They included stakeholders from Kenya, Tanzania, the East African Community secretariat, more than a dozen regional and international institutions and several multi-disciplinary, multi-sector aspects. The professional roles of participants included responders, health care workers, researchers and government officials.

***Field activities:*** The FSX simulated scenarios were modelled on an outbreak of Rift Valley fever. The participants conducted fieldwork for the first three days, with a debriefing session on the last day to document findings and lessons learnt.

The FSX began with a request for an investigation into potential cases of Rift Valley Fever at farm sites on both sides of the border.

The participants initially reacted by: i) reporting the potential cases to local authorities, ii) convening the EAC’s emergency operations centre, iii) activating health facilities and mobile laboratories, iv) inspecting slaughterhouses, and v) managing border crossings including attempted smuggling of ‘infected meat and milk’. Responses included specimen collection and mobile lab activation, growing media interest in dead animals, trade and tourism issues, hospital admission of patients with

suspected illness, and border crossing attempts by ‘infected’ people and livestock.

The community also took part in the FSX. There were risk communicators manning posts in Nairobi (Kenya), Dodoma (Tanzania) and Namanga (border town between the two countries) who collected information from experts, identified audiences and channels, prepared key messages and wrote press releases and coordinated risk communications efforts at the local, country and regional levels.

**Outcomes:** During the exercise, there was excellent cooperation and coordination across borders and accurate assessment reports. However, there were also some difficulties in operational communications flow, following sample handling procedures and working with ‘infected’ animals. The impact of the FSX is still being felt, with its many lessons learned put to use as illustrated by the quotes below.

***“My key lesson learned is that in the case of an outbreak, all agencies - even beyond those involved in One Health - need to come together and deal with the situation. If you don’t deal with it as a coordinated group, organisation or team, you will not control the outbreak. It is important to involve every sector to assist where it can if it is a genuine emergency.”*** Pauline Kituyi, Ministry of East Africa Community and Regional Development Authority in Kenya.

***“This field simulation exercise has been an eye-opener, and it provided an opportunity to reassess and to evaluate the progress made, regarding the documents developed and human resource capacities, in terms of outputs and collaboration and coordination between sectors and between partnering states and actors. The biggest challenge I have seen - and that was obvious - was coordination. However, this is usually also the case in real scenarios, unless you plan very well, do drills again and again and evaluate and re-evaluate.”*** Fasina Folorunso, Team Leader, FAO/Emergency Centre for Transboundary Animal Diseases, Tanzania.

***“We are in the process of sensitizing the leadership, senior management and policy makers on the importance of having some of our bureaucracy reduced in outbreak scenarios,***

***as emergencies don’t wait for anybody, but it will still take time. However, I hope that it will happen.”*** Lyndah Makayotto, Senior Medical Officer and Epidemiologist at Kenya’s Ministry of Public Health and Sanitation.

## Way forward

Based on the experiences drawn from the FSX, there is a need to increase dissemination of, and knowledge, about operating procedures and plans. Partner states should train staff and responders at all levels, especially at the EAC Secretariat level, on operating procedures. There is also a need to define the role of each sector and discipline in outbreak preparedness and response in the One Health context.

The involvement of different stakeholders, in a simulation exercise under a One Health approach, underscored the importance of effective risk communication and community engagement. It also made it easier to understand the roles of different stakeholders and illustrates potential ways they could contribute in future responses to disease outbreaks.

## Lay Summary

In June 2019, the East African Community secretariat, Kenya, Tanzania and international partners engaged in a complex and extensive four-day field simulation exercise (FSX). They based the FSX on a scenario modelling a suspected outbreak of Rift Valley Fever at Namanga, a town at the Kenya-Tanzania border.

They did the FSX to accomplish three objectives: To test regional and national contingency plans, involve health workers in procedures for preparing for and responding to any potential outbreak, and to assess regional risk and crisis communication capabilities. The exercise that took 18 months to plan and coordinate brought together nearly 300 participants. The exercise clearly illustrated the region’s capacities in preparing for and responding to infectious disease outbreaks and other health emergencies. There was excellent cooperation across borders and accurate disease assessments. Challenges included difficulties

in operational communications flow, following sample handling procedures and working with suspected infected animals. By undertaking this exercise, participants saw different stakeholders' roles and how to incorporate such roles in preparation for and response to future disease outbreaks.

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