



Food and Agriculture
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STORIES OF CHANGE



Animal health solutions:
a digital tool to support animal disease
surveillance and reporting mechanisms in Ghana

ANIMAL HEALTH SOLUTIONS: A DIGITAL TOOL TO SUPPORT ANIMAL DISEASE SURVEILLANCE AND REPORTING MECHANISMS IN GHANA

The livestock subsector is a major feature of Ghana's agriculture and makes a significant contribution towards meeting food needs, providing dietary protein and increasing nutrient adequacy, as well as providing employment opportunities and offering considerable prospects for wealth generation, income enhancement and improvement in rural livelihoods.

Enhancing local capacities in animal disease surveillance and reporting systems are crucial to protect livestock and people's incomes and food security.

Therefore, the Food and Agriculture Organization of the United Nations (FAO) has launched the Event Mobile Application (EMA-i) to support the surveillance and reporting mechanisms in place to monitor priority animal diseases in Ghana.

The introduction of EMA-i was timely for the animal health sector in Ghana, as the country is seeking to enhance agricultural extension delivery through the use of an e-extension system for farmers. The EMA-i system complements these efforts and creates synergies with existing and upcoming e-platforms in contributing to food and nutrition security.

EMA-i is a mobile app that enables data collection and the entry, storage and analysis of epidemiological data in real time, reducing human errors and ensuring data confidentiality. The data collected are georeferenced, so that GPS receivers in the field are not required. EMA-i is easy to use, reliable and interoperable. A smartphone, a central server and a local internet service provider are needed to utilize the app.

To introduce this digital tool in the country, FAO organized a training workshop on EMA-i in 2018. Thirty veterinarian staff – from the Veterinary Services Directorate of the Ministry of Food and Agriculture, the Ghana Health Service of the Ministry of Health, and the Ghana Statistical Services of the Ministry of Finance – were trained.

Dr Fenteng Danso, a veterinarian and Head of the Epidemiology Unit at the Veterinary Services Directorate of the Ministry of Food and Agriculture, was among the officials who received training on EMA-i.

"The training on the use of the EMA-i tool truly benefitted me," stated Danso.

"I learned how to timely detect diseases and to report them in real time, which makes prompt response possible. The efficacy of the daily fieldwork, as well as the management of the disease situation in the country, have improved," Danso affirmed.

He learned how to validate the data relating to an EMA-i event with FAO EMPRES-i, a web-based application designed to facilitate the organization of and access to disease data and information, to accept an EMA-i event with EMPRES-i, and to create an EMA-i event with the mobile app. He also developed skills in reporting both animal and public health diseases and in improving case definitions of diseases.

Good-quality disease information and timely reporting is essential to understand the disease situation, support decision making, prevent potential disease incursion and respond quickly to animal disease outbreaks.

The tool has proved to be an effective solution for the country, being successful in the timely reporting of events from the field to the central level using GPS technology, photographs and other features. Thanks to EMA-i, assigned field staff are able to report immediately ongoing events in the field. In addition, a much more defined structure of the epidemio-surveillance system for disease reporting ensures that the Veterinary Services Directorate now reports regularly and reliably on animal diseases to international organizations such as the World Organisation for Animal Health (OIE).

Since implementation of EMA-i in Ghana, the number of animal diseases reported from the field has showed a 5-fold increase, as at May 2019.

One of the challenges is to ensure that the tool is used on a daily basis and is harmonized among the Ministry of Health, the Ministry of Environment, Science, Technology and Innovation, the Wildlife of the Forestry Commission of the Ministry of Lands and Natural Resources.

"My outlook for the future is now brighter because EMA-i is easy to understand and utilize," Danso said.

"I hope that all technical staff of the Veterinary Services Directorate at all levels will be trained on the EMA-i application and provided with the necessary logistics to aid prompt disease reporting in real time," he added.

It is Danso's wish that after the FAO pilot phase covering seven regions and 29 districts, the Veterinary Services take ownership by providing the monthly Internet data to the staff. "We have to upscale EMA-i application nationwide to improve disease investigations, timely reporting and disease management in the country," concluded the Head of the Epidemiology Unit.