Food and Agriculture Organization of the United Nations

Newsletter
ECTAD Ethiopia
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WELCOME TO OUR SECOND NEWSLETTER

Dear Reader,

Our quarterly newsletter aims to keep our readers informed with news and updates of FAO's ECTAD Programme in Ethiopia.

In this issue, we share with you stories on evaluation of national animal health surveillance system; rabies awareness creation event; revision of national antimicrobial-related legislations; validation and dissemination of a baseline assessment on antimicrobial use and resistance in animal health; and joint multi-sectoral investigation of a rabies outbreak. In addition, this issue presents a wide range of supports provided to the National Animal Health Diagnostic Investigation Center (NAHDIC); and the launching of a project to enhance surveillance capabilities and underlying policy frameworks in selected East African countries including Ethiopia.

Moreover, a feature story that narrates our effort to modernizing the veterinary laboratory information management system in Ethiopia; and some key facts on the Rift Valley Fever, which is endemic to East Africa, are also incorporated in this publication.

We hope, you enjoy reading our newsletter. Feel free to forward this to your contacts widely and provide us your feedback by e-mailing feleseta.woldtsadique@fao.org.

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Head-Livestock and Pastoralism Thematic Program
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Baseline assessment result on antimicrobial use, resistance in animal health validated, disseminated

Workshop participants

A country-wide baseline assessment of Antimicrobial Use (AMU) and antimicrobial Resistance (AMR) in Animal Health was carried out in Ethiopia from January - February 2018. The objective of the assessment was to understand the current situation and magnitude, measure trends over time about AMU, AMR, and awareness and behaviors of targets. In addition, the assessment was believed to be used as a benchmark and see the outcomes of the interventions with time. FAO Ethiopia collaborated with the Veterinary Drug and Animal Feed Administration and Control Authority of Ethiopia, Ministry of Agriculture and Livestock Resources (MoALR) and the National Animal Health Diagnostic and Investigation Center (NAHDIC) to conduct the assessment.

The results of the assessment were validated and disseminated during a workshop organized from 26 – 27 June 2018 in Bishoftu town. Sixty participants drawn from federal and regional organizations, teaching and research institutions, public and private veterinary clinics and veterinary drugs retail outlets attended the event. At the end of the workshop, it was indicated that there is a continued need to strengthen the system, build the capacity and raise awareness of animal health care providers, farmers and others involved; to launch multifaceted interventions; and monitor the outcomes. Emphases were also given to actions that should be taken in the immediate term and with existing resources besides looking at those in midterm and long-term for identified gaps, targets, and behaviors. Further, the participants vowed for strong commitments on prevention and containment of AMR.

Call to tackle rabies through One Health interventions

"Let's beat rabies from Ethiopia with the true intention of One Health partnership," urged Dr Tsigereda Kifle, Deputy Director General of the Ethiopian Public Health Institute (EPHI). Dr Tsigereda made this call during an opening of a workshop themed "Rabies: Create Awareness, Save a Life!" FAO collaborated with the National One Health Steering Committee (NOHSC), the Government Communication Affairs Office, and the Ohio State University Global One Health Initiative to organize the workshop on 9 May 2018 in Addis Ababa. The workshop was aimed at enhancing information exchanging and networking among One Health actors in Ethiopia; sharing scientific information on rabies to stakeholders including the mass media; and enabling the media to effectively report rabies-related information to the public. Participants in the workshop were representatives from Government Ministries, academic and educational programs, professional associations and students, non-governmental organizations, donors, and the media. A total of 46 people took part in the event. READ MORE

Panelists in the workshop

FAO, partners review national antimicrobial-related legislations

Partial view of the review meeting

The Food and Agriculture Organization of the United Nations (FAO) assisted the Government of Ethiopia in reviewing legislations relevant to AMU and AMR.

The review process was conducted by a national legal consultant from February to April 2018. All the available regulations in the country that could contribute to reduce unnecessary AMU and AMR were reviewed. A total of 27 participants from federal government, development partners, associations and the National AMR Advisory Committee took part in the AMR-related legislation review workshop that took place on 8 May 2018 in Addis Ababa.

Going forward, the final report will be used as an input for One Health platforms for prevention and containment of AMR; and intensive effort will be made to popularize the assessment and the gaps for meaningful containment of AMR.

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Project to enhance national surveillance capabilities, underlying policy frameworks

An inception meeting for phase II the Defense Threat Reduction Agency (DTRA) funded regional project entitled, "Strengthening Epidemio-surveillance Capabilities and Underlying Regulatory Frameworks in Eastern Africa" took place from 25-27 June 2018 in Addis Ababa. FAO Ethiopia facilitated the meeting in collaboration with the MoALR's Epidemiology Directorate with the objective of developing and agreeing on the project outputs, activities and the implementation frameworks among the four beneficiary countries in East Africa (Ethiopia, Kenya, Tanzania and Uganda).

Partial view of the meeting

The project is aimed to enhance national surveillance capabilities, preparedness and response plans and strengthen the policy frameworks supporting disease surveillance in those countries.

Speaking at the opening of the meeting, Mr Abdoul Karim Bah, Deputy Representative to FAO Ethiopia, emphasized the importance of the project by saying, "It requires effective collaboration and synergy to prevent and control transboundary animal diseases and emerging pandemic threats."

Added to that, Dr Yismashewa Wogayehu, Director to the Epidemiology Directorate of the MoALR, underlined that strengthening surveillance systems and regulatory frameworks are central to making effective response towards TADs and emerging pandemic threats. National project focal points, ECTAD National epidemiologists, regional epidemiologist (ECTAD), regional socio-economists from Ethiopia, Kenya, Tanzania and Uganda, a total of 15 participants attended the event.

In the context of each country's identified major gaps in the epidemio-surveillance system, the meeting prepared detailed implementation plans and timeline for each country.

The project is developed as a follow up of the recommendations of the first phase of the project-Collaborative International Engagement to Prevent and Mitigate Threats from Especially Dangerous Pathogens in Targeted Eastern African Countries-which was successfully implemented in the four countries. The second phase of the project is to be implemented in collaboration with FAO ECTAD Eastern Africa, the United States Department of Agriculture and DTRA.

More than 188 000 USD to strengthen National Animal Health Diagnostic, Investigation Center

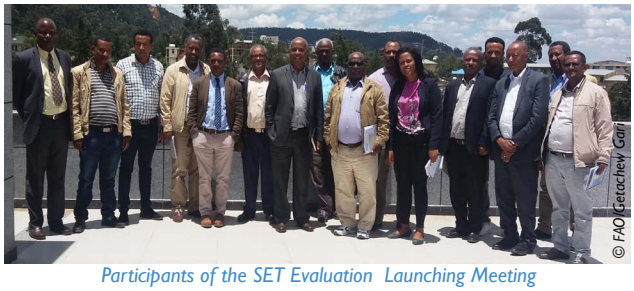
FAO's ECTAD Programme in Ethiopia has been collaborating with the Ethiopian Government to reinforce the country's animal health service capacity to prevent, detect and respond to priority transboundary animal diseases and zoonotic diseases of high public health impact. To this end, FAO has been providing a wide variety of support to strengthen the diagnostic capabilities of the Ethiopian National Animal Health Diagnostic and Investigation Center (NAHDIC).

Between April and June 2018, NAHDIC received different sorts of support worth USD 188 000 from ECTAD programme. The support included primers and probes for Avian Influenza (H5N1 and H5N8) detection; Real Time PCR instrument with desktop computer; vortex mixers; ELISA Reader-Biotek; pipettes; HA/HI kits; and laboratory consumables (MERS CoV diagnosis). Additionally, FAO has supported NAHDIC in the following areas: installation and training of information management system; quality management system; proficiency testing; equipment maintenance, calibration and metrology and sample referral and transport system trainings.

Ethiopia evaluates its animal health surveillance system

FAO, in partnership with the Government of Ethiopia through the MoALR, has conducted an animal health surveillance system evaluation between 23 April and 3 May 2018.

The main objectives of the external surveillance evaluation process were to assess epidemiological surveillance capacity of the veterinary service; to evaluate the country's progress for the surveillance of priority zoonotic diseases under the scope of the World Health Organization's Joint External Evaluation; to develop a short and long-term action plan to strengthen the national animal health surveillance system in line with the identified gaps and weaknesses; and to build the capacity of the Ministry to conduct similar internal evaluation missions in the future.



Participants of the SET Evaluation Launching Meeting

The evaluation was conducted in coordination with FAO and MoALR experts using FAO's Surveillance Evaluation Tool (SET). The evaluation resulted in a set of recommendations on tangible actions that can be initiated at country level to achieve realistic goals of improving the responsiveness of the surveillance system.

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Modernizing laboratory information management system in Ethiopia

The referral veterinary laboratory in Ethiopia, NAHDIC, is widely recognized as a center of excellence for animal disease surveillance, investigation, diagnosis and research. NAHDIC has played a significant role in promoting animal and human health, export of animal and animal products, improving livelihoods of smallholder farmers and pastoralists, and transfer technology to stakeholders.

In spite of this, NAHDIC has faced challenges over the last decades, which emanated from the increasing volume of samples and associated data received; and increasing interest of customers to receive the test report timely. Some of the challenges are associated with inadequate capacity of NAHDIC for sample reception and processing, data management and reporting. In order to address these challenges, FAO facilitated the introduction, installation and implementation of a Laboratory Information Management System (LIMS) also known as Sistema Informativo de Laboratori for Africa (SILABFA). Supporting online access, LIMS/SILABFA, is the most widely used information management system in African and Asian animal health laboratories. The introduction of LIMS/SILABFA to NAHDIC was initiated by FAO Ethiopia, through its ECTAD Program.

As part of introducing SILABFA, FAO's ECTAD Programme has facilitated training for 20 NAHDIC staff on SILAB. In addition, two NAHDIC staff members have attended advanced LIMS/SILABFA training course on LIMS/SILABFA Administration and IT support at IZS in Teramo, Italy. Apart from this, six staff from Assela, Kombolcha and Semera Veterinary Laboratories were trained on LIMS/SILABFA at NAHDIC by IZS Teramo expert. Following the training, SILABFA has become fully operational at NAHDIC.

According to Dr Hagos Asgedom, Associate Researcher at NAHDIC, "LIMS/SILABFA is a powerful tool because of its multiple advantages including automation of laboratory workflow from sample reception to testing labs and finally submission of test reports to customers." LIMS/SILABFA changes NAHDIC's paper based outputs into computerized system, improves laboratory data management system; simplifies data analysis and reporting; and improves storage, traceability, retrieval and sharing of laboratory data. In general, it helps to provide test results more quickly. Being an ISO-17025 compliant, LIMS/SILABFA has an added advantage in supporting NAHDIC's Quality Management System. Dr Hagos also said that the time to finalize a case with 1000 sera samples is reduced from 40hrs to 1hr. Overall, employing LIMS/SILABFA helps to build customers' trust and satisfaction. However, the system is not without challenges. According to the Associate Researcher, frequent power cut off in the center is one of the challenges of the LIMS/SILABFA system.

Finally, he concluded, "Without the unreserved support and continuous follow up of FAO ECTAD Ethiopia, it would be impossible to come up with current real implementation of SILAB at NAHDIC."

SILABFA has been installed in the national veterinary laboratories of Namibia, Botswana, Zambia, Zimbabwe and Tanzania, of which, Namibia, Botswana, Zambia, Zimbabwe are accredited through the SILAB system while Ethiopia, Tanzania and Kenya are on the way.

Rabies outbreak investigation takes place

FAO ECTAD Ethiopia collaborated with MoALR and EPHI to deploy a team of four professionals from EPHI and MoALR to investigate rabies outbreak in Dawuro Zone of the Southern Nations, Nationalities and Peoples' Regional State. Between 4-9 June 2018, the team reviewed the rabies outbreak and exposure investigation going on around Gena Bossa and Mareka woredas of the Dawuro Zone.

During the review, it was discovered that within the past 3 months, there have been 35 rabies exposures: 15 from Gena Bossa and 20 from Mareka woredas; of which, 3 were suspected human clinical rabies deaths in Mareka woreda. No human death due to rabies was reported from Gena Bossa woreda. It was also discovered that all rabies exposures were sent to Tercha General Hospital for anti-rabies post exposure prophylaxis vaccination from both woredas. According to the results of the focus group discussion conducted by the team, 12 cattle, 2 goats, and 1 sheep were bitten by rabid dogs and dead in the zone during the outbreak. Regarding the source of exposure, the team identified that dogs are the main exposing animals for human. However, foxes are also mentioned as the main exposing animals for the dogs because of the unusual interface of foxes and dogs that happened in the area during the outbreak.

The possible risk factors identified by the team were interaction of the wild animals like foxes and hyenas with dogs; high number of stray dogs; poor public awareness for dog population management and vaccine; and inadequate vaccine supply for dog mass vaccination. In response, the Tercha Woreda Council and Health Office and the Dawuro Zone Livestock and Fishery Department have taken appropriate measures. These are, community awareness creation regarding rabies in public meetings; prohibition of slaughtering of animals at abattoirs under veterinary oversight following the outbreak; dogs vaccination; and elimination of free-roaming dogs.

Finally, the deployed team recommended for the establishment of One Health taskforces at regional, zonal and woreda levels; dog mass vaccination and dog population registration; training of trainers for public and veterinary professionals on mechanisms of rabies control and dog population management; awareness raising efforts on rabies and proper communication and management of future outbreaks.

What Should We Know about Rift Valley Fever (RVF)?

- RVF is a viral zoonotic disease endemic to Africa;
- It primarily affects animals but can also infect human beings;
- RVF threat increases following heavy rains and sustained flooding;
- RVF causes outbreaks in livestock characterized by high rates of abortion and neonatal mortality;
- In humans, it causes influenza-like syndrome: fever, headache, muscular pain, weakness, nausea and epigastric discomfort, photophobia and may also be fatal;
- Human infections may result from contact with the blood or organs of infected animals or through bites of infected mosquitoes;
- Outbreaks of RVF in animals can be prevented by a sustained program of animal vaccination;
- RVF can be prevented and controlled by draining of stagnant water and controlling of hygiene, vector and animal movements;
- RVF has no specific treatment or effective human vaccine;
- Herders and farmers are always at higher risk of infection from the RVF disease;
- People should avoid handling meat from infected animals and consuming raw milk; and ensure that the corpses of dead animals are buried carefully;
- Awareness raising is important to inform the public about the disease and how to prevent it from spreading; and
- RVF has never been reported in Ethiopia, however, outbreaks in animals and humans have been reported in Kenya, South Sudan, Somali and Uganda.

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