



### FAO, Government collaborate on developing possible scenarios and their impacts on Ethiopia's livestock sector

FAO supported the Government of Ethiopia to develop four plausible future (2050) scenarios for Ethiopia and its dairy cattle and beef systems and to assess their impacts on public health, environment and livelihoods. The scenarios were formulated through a participatory and consultative process during a scenario formulation exercise organized for representatives from government, private sector, NGOs and international institutions. The four possible scenarios projected were: highly stable open democratic governance and booming resilient economy; highly stable open democratic governance but collapsed fragile economy; highly unstable monstrously corrupt governance but booming resilient economy; and highly unstable monstrously corrupt governance and collapsed fragile economy.



Partial view of the scenario formulation exercise

FAO Ethiopia facilitated the scenario formulation exercise in collaboration with the Federal Ministry of Agriculture. This exercise was made using available projections and foresight methodologies and active participation of key partners. During the exercise, partners reviewed the past and current situations of the country and its cattle systems; and agreed upon major mega trends and uncertainties in key areas such as governance, economy, environment, social, technological and societal values that will shape the future of the country in the coming decades. Stakeholders were engaged in a strategic conversation to build on long-term livestock projections to articulate country and livestock scenarios for 2050, including their impact on public health, the environment and livelihoods; and discussed endemic zoonoses, emerging infectious diseases and antimicrobial resistance in the future scenarios using the future wheel approach among others. Following the scenario formulation exercise, detailed report on the plausible future scenarios of the country and the anticipated impacts associated with the long-term development of the livestock sector has been prepared. This will form the basis of consultations and dialogue among livestock, health and environment sectors stakeholders seeking to identify opportunities and threats and to agree upon priority reforms and investments.

### One Health MoU, four years strategic plan endorsement and launch

A Memorandum of Understanding (MoU) signed for operationalization of One Health in Ethiopia was endorsed and unveiled on 2 October 2018 in the presence of high-level officials from the Ministry of Agriculture (MoA), Ministry of Health (MoH), Environment, Forest and Climate Change Commission (EFCCC), Ethiopian Wildlife Conservation Authority (EWCA), development partners and non-governmental organizations during a One Health Stakeholders Workshop. During the course of the event, the National One Health Strategic Plan (2018 – 2022) and the multi-sectoral Anthrax and Rabies Prevention and Control/Elimination Strategies were formally launched. FAO Ethiopia was among the panelists in the event to discuss future and sustainability of One Health in Ethiopia.

### Brucellosis Technical Working Group has been established

FAO Ethiopia collaborated with the NOHSC to establish a Brucellosis Technical Working Group (TWG), which is intended to facilitate inter-sectoral collaboration to coordinate and follow up activities on surveillance, laboratory diagnostics and prevention and control of Brucellosis. The TWG is composed of relevant governmental stakeholders including the MoA, MoH/Ethiopian Public Health Institute, EWCA and EFCCC as well as partners such as Centers for Disease Control and Prevention, the Ohio State University Global One Health Initiative (OSU-GOHi), Human Resource for Health (HRH-2030) and Johns Hopkins University Center for Communication Programs (JHU-CCP). On 6 December 2018, key governmental and non-governmental partners gathered at FAO Ethiopia premises to mark the establishment of the TWG and agreed to develop a One Health approach strategy for the prevention and control of Brucellosis in Ethiopia.

### FAO, partners organize panel discussion to commemorate World Antibiotics Awareness Week (WAAW)

WAAW 2018 was commemorated on 27 November 2018 at Ghion Hotel, Addis Ababa with the theme, “Antimicrobial Resistance (AMR) Poses a Big Threat to Human, Animal and Environmental Health and the Economy - Behavior Change Can Make a Difference!” FAO Ethiopia co-organized the event with partners and stakeholders.

In his opening remarks, Deputy Director General of the Ethiopian Food, Medicines and Health Care Administration and Control Authority (EFMHACA), Dr Keyredin Redi, emphasized among others on the need to increase public awareness on AMR through various mechanisms and initiate the public to own the system of regulating and controlling the supply of unapproved antibiotics. The panel discussed a wide range of issues



The panel

that coalesced around AMR including its global magnitude and impact, global strategy and plan of action for its prevention and containment, implementation status of the Ethiopian strategy, and results of Ethiopian AMR surveillance report.

The panelists were from World Health Organization, FAO, EFMHACA, Veterinary Drug and Animal Feed Administration and Control Authority, Ethiopian Public Health Institute (EPHI), and National Animal Health Diagnostic and Investigation Center (NAHDIC). Tenaw Andualem, from FAO, presented on AMR prevention and containment global and Ethiopian experiences; and next steps. Finally, the panel called upon key stakeholders mainly public and animal health professionals, health regulatory bodies, and decision makers and influencers as well as the public to join hands in the fight against AMR.

### Project to support national effort against Tsetse, African Animal Trypanosomosis

FAO Ethiopia has launched a new project entitled “Developing National Implementation Capacities for the Control of Tsetse and African Animal Trypanosomosis (AAT) in Ethiopia.” The main objective of the project is to support the Ethiopian Government to build national planning and implementation capacities to effectively control and eliminate AAT in the context of sustainable agriculture and rural development.

The intervention mainly focuses on capacity development, coordination, and expansion of the already piloted livestock protective fence that is proved effective in controlling Tsetse and Trypanosomosis, improving animal health and increasing production. This is believed to bring about a progressive reduction of AAT burden and impact on the livestock sector and rural economy which, in turn, enhances food security and alleviates poverty. The project implementation period is from July 2018 to June 2020.

FAO supports the implementation of the project in collaboration with the MoA and the National Institute for Control and Eradication of Tsetse and Trypanosomosis (NICETT). Other partners include public and private livestock services at National, Regional, Woreda and Kebele levels, as well as the beneficiary communities. National authorities, national and regional technical staff, and extension technicians, livestock keepers/owners, and farming households will directly benefit from the project. It is known that the AAT, which is transmitted by tsetse flies, is one of the most significant problems to cattle health and productivity in Ethiopia. It is known that the AAT, which is transmitted by tsetse flies, is one of the major problems of cattle health and productivity in Ethiopia.

### Following up SILAB implementation

It is known that ECTAD Ethiopia has facilitated the introduction, installation and implementation of a Laboratory Information Management System also known as Sistema Informativo de Laboratori for Africa (SILABFA) at NAHDIC. This helps NAHDIC to upload and manage years of laboratory data into the system as well as speed up its decision-making process.

As a follow up to the installation and implementation of SILAB, some rolling out activities have been accomplished. These include, among others, ensuring the functionality of the system in all the diagnostic sections of the center including sample reception; and demonstration of data backup procedures and sharing of additional SILAB resources with the newly recruited IT personnel at the center. In addition, gaps identified so far on test report production were addressed; and SILAB data analysis, presentation and reporting have been introduced using Microsoft Power Business Intelligence. Side by side, NAHDIC has developed a standard operating procedure for the SILAB database to fulfill the requirement of its quality management system.

## Dissemination, interventions workshop on pilot good practices on dairy farm

A workshop titled “Mastitis Prevention, Prudent Antimicrobials Use, and Reduce Antimicrobial Resistance and Residues in Dairy Farms” was organized on 29 November 2018 at the College of Veterinary Medicine and Agriculture of the Addis Ababa University (CVMA), Bishoftu. ECTAD Ethiopia and CVMA jointly organized the workshop that involved 22 participants, dairy farmers and animal health care providers.

The objectives of the workshop were to discuss and provide feedbacks on the practices and the findings of the baseline assessment on knowledge, attitude and practices of animal owners on antimicrobials use,

residue and resistance, and dairy practices; and to assist dairy farms develop good dairy practices for improved production and profitability. In addition, the event was intended to advise farmers on how to reduce mastitis and the use of antimicrobials; and how to assist farmers reduce antimicrobials residues in milk.



Experience sharing visit to CVMA Dairy Farm

On top of this, the discussion at the workshop covered broad range of issues the farmers encounter at their respective farms.

The workshop started with the experience sharing among farmers and the challenges they face in their dairy farms. This was followed by presentations, explanations and discussions on findings of knowledge, attitudes, beliefs and practices as well social behaviour change communication materials in relation to the objective of the event.

There was also a field visit to two dairy farms i.e., CVMA and Genesis farms with special emphasis on the health of dairy animals. Hygiene and sanitation requirements, the necessity of regular medical attention in dairy farms, how to reduce mastitis and antimicrobials use and how to improve the quality of milk were the key focus areas of the experience sharing visit.

## Training to boost workforce capacity in animal health surveillance system of East African countries

In-Service Applied Veterinary Epidemiology Training (ISAVET) program is put in place primarily to develop essential core competence of veterinary epidemiology knowledge and skills in a One Health approach at local, national and regional level that work on priority national diseases to strengthen animal health surveillance system. The ISAVET program would also strengthen emergency response to natural and man-made disasters including emerging disease outbreak investigations/management and along the process will develop capacity for future trainers and mentors of ISAVET frontline level.

On 10 October 2018, ECTAD Ethiopia organized a pre-training meeting for ISAVET trainees and stakeholders in Addis Ababa, Ethiopia. A total of 15 participants including trainees, mentors, Field Epidemiology Training Program Advisor of Center for Disease Control and Prevention (CDC) and staff from Public Health Emergency Management attended the meeting. The event was intended to establish links between the trainees and mentors before commencement of the pilot training and to identify field project topics relevant to the country's animal health needs.

The meeting discussed the identification of field project topics which could be feasible and achievable within the project due time. Following this, an inception workshop took place from 15 to 16 October 2018 in Kampala, Uganda, to discuss the development and implementation of a sustainable ISAVET program in Africa. and 6 trainees) to the meeting.

The workshop was intended to gain consensus among partners concerning support for the implementation of ISAVET and establish a functional network of animal health and public health trainers, instructors and mentors to support the program. FAO Ethiopia sent 7 delegates (1 delegate of CVO from MoA and 6 trainees) to the meeting.

The pilot frontline ISAVET Programme was jointly launched by FAO and the Institute for Infectious Animal Diseases of Texas A&M University in collaboration with the College of Veterinary Medicine Animal Resources and Biosecurity, Makerere University, working closely with public health, and other local partners. The training was conducted from 17 October to 9 November 2018 in Makerere University, Kampala, Uganda, and consisted of class activities and a field project practical study that covers four months in total. Seven African countries including Ethiopia took part in the training. FAO Ethiopia sent 6 veterinarians to the frontline pilot training. These trainees were drawn from Amhara, Oromia, Tigray, Somali, Benishangul-Gumuz, and Southern Nations, Nationalities and People's Regional States.

Following the 4 weeks formal training, the trainees are working on their field projects being supported by their home-based mentors who are assigned to supervise the trainees at their work places, and provide them with technical support and guidance in their project work. The trainees are expected to finalize and submit their field project by 31 March 2019.

### Training on Avian Influenza sample collection, testing

FAO Ethiopia facilitated a training on Avian Influenza sample collection and testing to regional laboratories from 10 to 15 December 2018 at NAHDIC, Sebeta. The objective of the training was to enhance the diagnostic capacity of selected regional state veterinary laboratories on core tests as per the Global Health Security Agenda milestones. Nine participants from regional state veterinary laboratories attended the training. The participants would go out to the field in their respective areas for sample collection and testing from domestic chicken and wild birds as part of an annual HPAI active surveillance plan.

### Enhancing multi-sectoral outbreak investigation, surveillance data analysis capabilities

Training workshop on outbreak investigation and surveillance data analysis was provided for 20 animal and public health experts drawn from MoA, Regional veterinary laboratories, Regional veterinary offices and EWCA from 26 to 31 November 2018 in Adama, Ethiopia. FAO Ethiopia organized the training workshop in collaboration with the MoA.

The event aimed to enhance analytical and data visualization capacity of animal and public health experts directly working on surveillance data.

## Current state of camel production systems in Ethiopia, potential MERS-CoV risk factors

Camels are the most adapted species to the harsh conditions of arid and semi-arid rangelands of Ethiopia where pastoralism is the dominant mode of life and mobility is an inherent strategy to efficiently utilize the spatially and temporally distributed pasture and water resources. Usually, large numbers of camels and other animals from many different herds or flocks congregate at watering sites and this may create a perfect condition for disease transmission and spread among animals. The same water sources are also shared by multitudes of wild animals. Camel ownership by household ranges from few heads (5–10) to several hundreds. Female camels account for more than 75 percent of the herd. Male camels are usually sold early as pack animals or for slaughter. Female camels may remain fertile up to 25 yrs. during which, they produce 8–10 calves. Camels are herded during daytime on communal rangelands. During night, they are kept in traditional kraal around homestead. Breeding time is short and seasonal and is affected by rainfall patterns and feed availability. Usually only men milk camels. Milking frequency ranges from 2–5 times per day. Washing of hands, milking vessels, the udder and teats is not practiced by many prior to milking the camels. Besides, milking area is generally full of dust and dung and without a shade. These affect quality and safety of the produced milk. Pathogens and diseases of camelids are less well known; however, they are suspected as zoonotic sources for the human infection with the Middle East Respiratory Syndrome Coronavirus (MERS-CoV). There is increasing need to determine whether camels are clinically susceptible, act as potential reservoirs and maintenance or bridge hosts, to viral pathogens.

Read the full paper by Tadele Mirkena, Elias Walelign, Nega Tewelde, Getachew Gari, Getachew Abebe, and Scott Newman (2018). *Camel production systems in Ethiopia, a review of literature with notes on MERS-CoV risk factors. Pastoralism: Research, Policy and Practice. 8(30). <https://doi.org/10.1186/s13570-018-0135-3>*

**Food and Agriculture Organization of the United Nations**  
Emergency Center for Transboundary Animal Diseases, Ethiopia  
(ECTAD-Ethiopia)  
Tel. +251 (0) 116 478888/+251 (0) 116 478800 P.O. Box 5536  
E-mail: [fao-et@fao.org](mailto:fao-et@fao.org) Internet: <http://www.fao.org/ethiopia/en/>  
Addis Ababa, Ethiopia

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