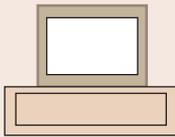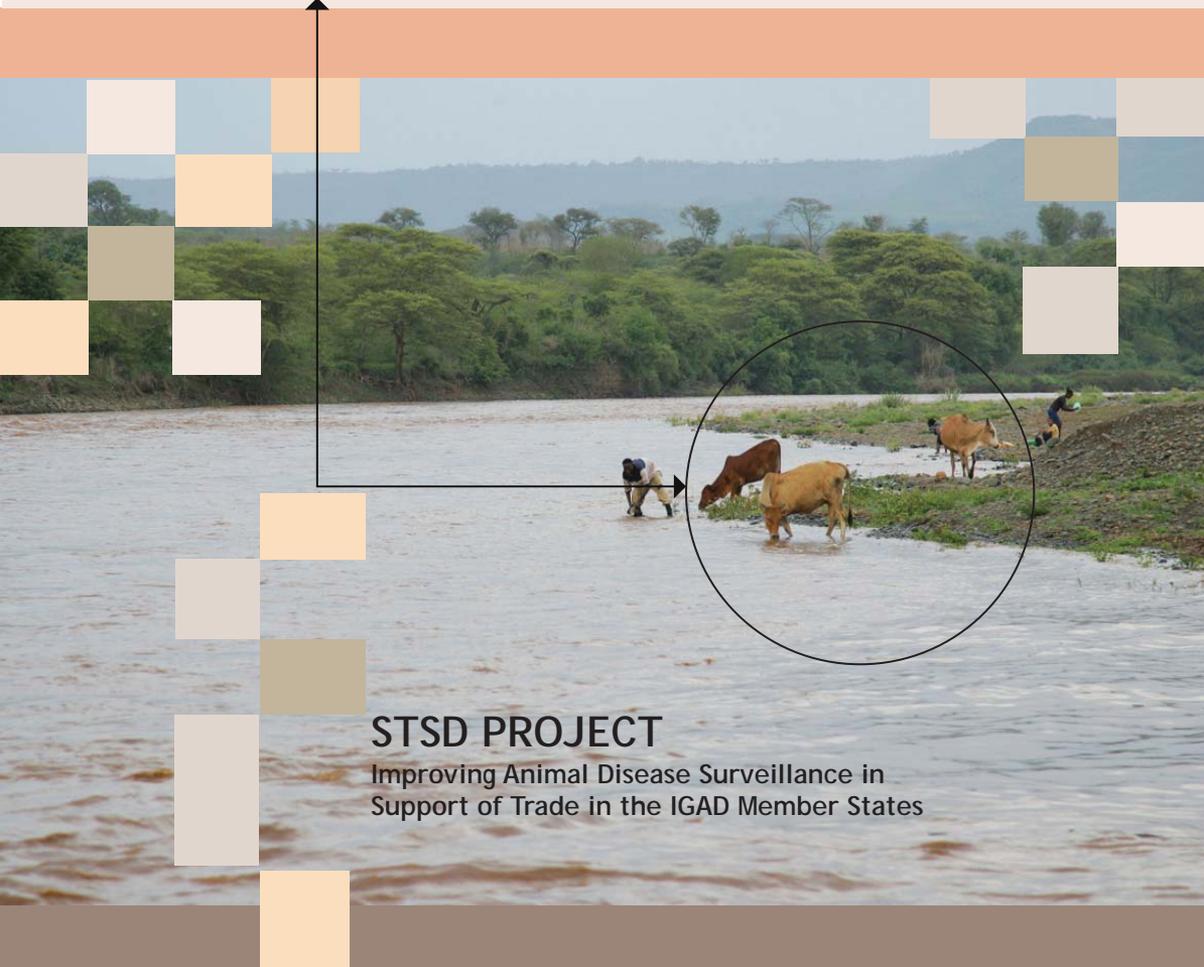# STEP OUT! TOGETHER, WE CAN SAFEGUARD OUR ANIMALS FROM DISEASES.

**ANIMAL DISEASE SURVEILLANCE SYSTEM
WHY DO WE NEED IT?**

STSD PROJECT

**Improving Animal Disease Surveillance in
Support of Trade in the IGAD Member States**

STEP OUT! TOGETHER, WE CAN SAFEGUARD OUR ANIMALS FROM DISEASES!

ANIMAL DISEASE SURVEILLANCE SYSTEM
WHY DO WE NEED IT?

AFRICAN UNION
**INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES**

STSD PROJECT
Improving Animal Disease Surveillance in
Support of Trade in the IGAD Member States

www.au-ibar.org

ANIMAL DISEASE SURVEILLANCE SYSTEM (ADSS)

1 WHAT IS IT?

Animal disease surveillance system (ADSS) refers to the collection, organisation and analysis of information related to animal health and the timely dissemination of the information to pertinent bodies to enable them making informed decision in animal disease management. In specific terms, it is the action of following-up a given animal population closely in order to see if a disease makes an incursion, which constitutes importance to national economy, food security and trade. The objective of surveillance is therefore to make an early detection of a disease with the aim of initiating a response to control it.

The activities of disease surveillance comprise either an active or passive surveillance or both. The active disease surveillance is a purposeful and comprehensive searching for a disease infection in animal populations or for verification that such populations are free of specific diseases or infections. It usually helps to target specific high threat diseases or monitor the progress of a disease control or eradication campaign.

On the other hand, passive disease surveillance is an activity by which data and information is collected from disease reporting agents.

A successful disease surveillance programme encompasses both active and passive systems and may have the following attributes:

- Collection, organisation and utilisation of disease information from all potential sources in the public and private sector;

- Periodic targeted and/or random surveys (serological, virological, clinical surveys) in animal populations;

- Regular visits to farming communities for farmer interviews about and observations on disease occurrences;

- Close integration/collaboration between the activities of field and laboratory veterinary services;

- Gathering of ancillary information to support prioritisation and decision-making on animal health programmes;

- Provision of animal health advices, clinical examinations and, when appropriate, post-mortem examinations.

2 WHY DOES THE IGAD REGION NEED IT?

The IGAD Region is endowed with huge livestock resources. Studies indicated that the Region is home of about 336 million ruminants. Despite these huge resources, livestock dependent communities and national governments could not fully benefit and tap from the livestock sector to earn substantial income.

Although there are a number of underlying obstacles that hamper the development of the livestock sector, trans-boundary animal diseases (TADs) and zoonoses (diseases that can be transmitted from animals to people) represent the main challenges. TADs deter the IGAD Member States (MS) from adequately taking part in regional and international trades. Controlling animal diseases is therefore one of the priorities in the IGAD Region. Generally, animal disease surveillance system provides MS with the required data and information to:

- Determine the presence, level of occurrence and distribution of disease or infection;

- Demonstrate absence of disease or infection;

- Detect emergence or incursion of new disease into a country; and

- Provide data for risk analysis and substantiate the rationale for sanitary measures in trade of livestock commodities.

3 CHALLENGES IN ANIMAL DISEASE SURVEILLANCE IN THE REGION

Studies indicated that the existing surveillance system in many of the IGAD Member States remained unsatisfactory. Diseases reporting systems in these countries often suffer from:

- Low geographical coverage (low representation of the national livestock population);

- Inadequate integration of laboratory diagnostic units into the passive surveillance system;

- Low awareness of the reporting agents about the benefits of disease reporting;

- Unavailability and/or inadequacy of modern technologies for disease surveillance; and

- Inordinate delays and distortion of information.

Disease reporting in many of these countries is therefore incomplete and hardly representing the true picture of the disease situation. As a result, the decision making process and the actions being taken henceforward have been impractical to monitor and control animal diseases.

4 HOW DOES THE SYSTEM BENEFIT THE MEMBER STATES?

In order to address the challenges mentioned above, a well-established animal disease surveillance system needs to be in place. The system benefits farmers, health workers, policy makers as well as other parties across the livestock value chain. The benefits likely to accrue to livestock owners and to the economy are summarised below:-

Benefits to livestock owners:

- Better management of diseases of their livestock;

- Availability of veterinary services;

- Increased livelihoods incomes from higher productivity of animals, and

- Improved market acceptability of their livestock and livestock products.

Benefits to the national economy

- Increased livestock production and productivity;

- Improved market access for livestock and livestock products in the regional and international markets;

- Saving of costs otherwise incurred for treatment of animals;

- Contributing to the growth of the livestock sector, leading to increased employment;

- Generating and availing of animal protein to the population; and
- Protecting humans from animal diseases.

Benefits to public policy and decision makers:

- Availability of a common channel for dissemination of animal disease information to all stakeholders;
- Availability of instant alert system for outbreak of diseases, spread of diseases, remedial measures and expert advice;
- Enabling prompt control of diseases; and
- Availability of enhanced decision support system.

" To ensure early recognition of diseases, all veterinarians and animal health workers should be trained on clinical features and reporting methods. "

5 WHAT DOES THE SYSTEM ENTAIL?

LAYING THE FOUNDATIONS

- National governments must realise that animal disease surveillance system is a key function of their national veterinary services;

- Once that is an accepted principle, there is a need to agree on the significance of a properly structured and administered system;

- Having such a robust system requires cooperation among the management and field staff, other extension staff, private veterinarians, farmers and other organisations that might be operating on the ground; and

- The official veterinary service that is initiating and driving the process.

SITUATION ANALYSIS

Effective control of animal diseases requires a comprehensive understanding about the distribution, patterns, causes and effects (epidemiology) of diseases in the country or in a specific region.

SETTING OBJECTIVES

Agreeing on the objectives of the system is a critical phase as it determines the type and level of activities and resources. These objectives may be focusing on the early detection of trans-boundary diseases of economic, food security and public health importance.

DEFINING PRIORITY AREAS

Having identified priority diseases and the areas where these diseases are located is the next important step in the design of the disease surveillance system. The system being resource intensive, it may not always be feasible to direct resources equally throughout the country. Thus, areas where the identified diseases pose the greatest problem will have to be earmarked for the first resources in terms of training, staff, intensity of surveillance, etc.

SETTING TARGETS

A proper management plan, defined priorities, targets, responsibilities, resource allocation and responsibilities must be drawn up and adhered to. The plan provides answers on such questions as, how and when will the inspection start? What will the frequency of surveillance inspections be in the area? Who will be responsible for each activity?

ESTABLISHING THE INFORMATION SYSTEM

Countries should have a fully operational disease information system so that there can be a two-way flow of information between national veterinary headquarters, government veterinary diagnostic laboratories and regional/local health workers. The reporting system should envisage as smooth and practical reporting methods, which enable all stakeholders across the value chain report the disease information and get feedbacks. The system will be so designed as to assure secure data transfer and confidentiality of information. At the apex level, the system will compile and generate animal disease information for the country, which is accessible by pertinent persons.

6 PUTTING A LEGAL FRAMEWORK IN PLACE

Disease reporting and surveillance activities entail a robust legal framework for their implementation and enforcement. The legal framework may address such issues as objectives and scopes of the system, as well as the type of animal species, geographical locations, the obligations of various stakeholders, confidentiality, information accessibility issues and methods of information exchange.

7 PREPARING TO CONDUCT SURVEILLANCE

Countries, through their veterinary service units, need to empower the disease reporting components, which include among others, reporting agents (farmers, traders, extension workers, private and public sector animal health service providers, and sub-national veterinary units), and diagnostic labs (district, regional and national labs) and epidemiology units.

- Instruction should be provided to animal health workers, communities and other parties across the livestock trade value chain on disease reporting responsibilities and procedures, disease surveillance and other field epidemiology methods and disease control actions at the outbreak site(s).

- Awareness creation about the importance of disease reporting among livestock farmers and other key stakeholders is the

most critical aspects of the system. It is important to foster a sense of participation in disease control campaigns.

- It is important to provide a first-hand experience to all animal health workers to recognise basic clinical features of trans-boundary or other emergency animal diseases, as these diseases may never have occurred in the country or may have been exotic for a considerable period.

- Field diagnostic manuals are most useful if they are prepared in a simple, practical and graphic format whereby they can be used as a quick reference at the site of a disease outbreak.

- It is recommended that specialist diagnostic teams be ready to be mobilised when there is a report from the field of a suspected animal disease.

- Fully equipped laboratories that have a range of standardised diagnostic reagents and experienced staff, who can rapidly and accurately diagnose diseases are crucial. Additionally, well-established links with the networks of FAO and OIE reference laboratories and collaborating centres are important to get advice and assistance.

- A clear understanding and compliance with international and regional standards and regulations, such as OIE and AU-IBAR, are essential to meet obligatory disease reporting requirements.

In its capacity as a leading continental organisation for livestock development, the African Union Inter-African Bureau for Animal Resources (AU-IBAR), in collaboration with the Intergovernmental Authority on Development (IGAD), assists Member Countries of IGAD to improve LITS and Disease Surveillance Systems through its regional project, STSD.

8 CONDUCTING SURVEILLANCE

- Various methodologies can be applied to conduct surveillance and disease reporting. Probably the most popular and one of the easiest and cheapest is passive surveillance, where the observer physically inspects animals and records what he observes in terms of disease and reports to a nearby animal health facility. Active surveillance, such as sero-survey is another methodology, where blood tests are used to detect and determine the state of disease prevalence.

- In the case of an emergency report on a disease outbreak or incident, the basic information that needs to be collected includes the exact geographical location of the disease outbreak(s); the names and addresses of affected farms or villages; livestock species affected; approximate numbers of sick and dead animals; brief description of clinical signs and lesions observed; date (s) when the disease was first noticed at the initial outbreak site and any subsequent sites; details of any recent movements of susceptible animals to or from the outbreak farm or village; any other key epidemiological information, and initial disease control actions taken.

9 USING THE INFORMATION

- Three things must happen to the information/data collected: firstly, it must be quality checked and stored; secondly, it must be analysed in order to become more understandable, and thirdly, it must be acted upon, that is, the information to be useful for decision-making on disease situation, which is the ultimate gaol of the system.

AU-IBAR

AU-IBAR provides leadership in the development of animal resources for Africa through supporting and empowering AU Member States and Regional Economic Communities. It supports and coordinates activities that lead to effective utilisation of animals (livestock, fisheries and wildlife) as a resource for human wellbeing and economic development.

Read more: www.au-ibar.org

IGAD/ICPALD

IGAD Centre for Pastoral Areas and Livestock Development (ICPALD) is poised to advance social and economic development of the Region through promoting better policies and marketing strategies for dryland agriculture and alternative livelihoods. Key areas of intervention includes, livestock production and productivity, fisheries, aquaculture and marine resources development.

Read more: http://igad.int

STSD PROJECT

AU-IBAR in collaboration with IGAD Secretariat is implementing the project called, 'Improving Animal Disease Surveillance in Support of Trade in IGAD Member States", in short, "Surveillance of Trade Sensitive Diseases – STSD". The STSD project aims at reducing the impact of TADs and zoonoses on trade in livestock and livestock products as well as increasing resilience of vulnerable livestock-dependent communities.

The project is expected to deliver two results: (i) Improved animal identification and traceability systems and strategies, and (ii) Enhanced disease Surveillance systems and control strategies in the IGAD Member States. The project is financed by the European Union (EU).

For more information please visit: www.au-ibar.org/stsd

STSD PROJECT

Improving Animal Disease Surveillance in
Support of Trade in the IGAD Member States

INTER-AFRICAN BUREAU FOR ANIMAL RESOURCES (AU-IBAR)
Kenindia Business Park, Museum Hill, Westlands Road,
P.O.Box 30786, 00100, Nairobi, KENYA
Tel: +254 (20) 3674 000; Fax: +254 (20) 3674 341/2
E-mail: ibar.office@au-ibar.org; www.au-ibar.org