

IGAD Regional Animal Health Bulletin

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An initiative of the Standard Methods and Procedures in Animal Health (SMP-AH) Project, a collaborative project spearheaded by African Union Interafrican Bureau for Animal Resources (AU-IBAR) in partnership with IGAD/IGAD Centre for Pastoral Areas and Livestock Development (ICPALD)

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Acronyms

- ARC Agricultural Research Council
- ARC-API Agricultural Research Council-Animal Production Institute
- ASF African swine fever
- ASFV African swine fever virus
- AU-IBAR African Union Interafrican Bureau for Animal Resources

AU-PANVAC African Union Pan African Vaccine Centre

- ARIS 2 Animal Resources Information System
- BMC Botswana Meat Commission
- **CCPP** Contagious Caprine Pleuropneumonia
- CCWT Chama Cha Wafugaji Tanzania
- **CBPP** Contagious Bovine Pleuropneumonia
- DNA Deoxyribonucleic acid
- ELISA Enzyme-Linked Immuno-Sorbent Assay
- **C-ELISA** Competitive ELISA
- DGAK Dairy Goat Association of Kenya
- EMPRES-I EMPRES Global Animal Disease Information System
- EU European Union
- FMD Foot and Mouth Disease
- GHoA Greater Horn of Africa
- HS Haemorrhagic Septicaemia
- ICPALD IGAD Centre for Pastoral Areas and Livestock Development
- ICT Information Communication & Technology
- IGAD Intergovernmental Authority on Development
- IgG Immunoglobin G
- KALMA Kajiado & Amboseli Livestock Marketing Association
- **KENDAPO** Kenya National Dairy Producers Association

KENPIFA	Kenya Pigs farmers' Association
KLBO	Kenya Livestock Breeders' Organization
KLPA	Kenya Livestock Producers Association
KNTA	Keekonyoike & Ndagureti Meat Traders Associations
KPBA	Kenya Poultry Breeders Association
KSA	Kingdom of Saudi Arabia
LAT	Leather Association of Tanzania
LIT	Livestock Identification and Traceability
LMD	Livestock Marketing Division
LSD	Lumpyskin Disease
MERSCoV	Middle East Respiratory Syndrome Corona virus
MOLF	Ministry of Livestock and Fisheries
MoU	Memorandum of Understanding
NADHIC	National Animal Diagnostic and Health Investigation Centre
NEALCO	North Eastern Africa Livestock Council
NDV	Newcastle Disease Virus
NGO	Non-Governmental Organization
PCR	Polymerase Chain Reaction
PPR	Peste des Petits Ruminants
RABAK	Rabbit Breeders' Association of Kenya
RELINE	Renaissance Livestock Network
R&D	Research and Development
RMIF	Red Meat Industry Forum
RP KSA	Rinderpest in Kingdom of Saudi Arabia
RVF	Rift Valley Fever
RVFV	Rift Valley Fever Virus
SGP	Sheep and Goat Pox

- SMP Standard Methods and Procedures
- **SMP-AH** Standard Methods and Procedures in Animal Health
- SNNP Southern Nations, Nationalities and Peoples
- **SOP** Standard Operating Procedures
- TADs Trans-boundary animal diseases
- **TALIMENTA Tanzania Livestock and Meat Traders Association**
- TAMEPATanzania Meat Processors Alliance
- TAMPATanzania Milk Processors Association
- **TAMPRODA Tanzania Milk Producers Associations**
- **TPBA Tanzania Poultry Breeders Association**
- TRA Taveta Ranchers' Association
- TVLA Tanzania Veterinary Laboratory Agency
- UAE United Arab Emirates
- USAID United States Agency for International Development
- UMPCU Uganda Meat Producers Cooperative Union
- VNT Virus Neutralization Test
- WTO World Trade Organization

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Preface

Welcome to the Fifth Edition of the IGAD Regional Animal Health Bulletin, a regional bulletin for animal health reports and related issues. This is an initiative of the Standard Methods and Procedures in Animal Health Project, a collaborative project spearheaded by African Union Interafrican Bureau for Animal Resources in partnership with IGAD/IGAD Centre for Pastoral Areas and Livestock Development. This edition of the regional bulletin focuses mainly on the disease situation in IGAD countries during 2015; Development of bilateral agreements by Djibouti, Ethiopia, Somaliland and Somalia to support harmonization and coordination of veterinary activities in cross-border areas; Strengthening disease recognition and reporting in cross-border areas as a means to improve passive surveillance; Rolling out Standard Operating Procedures for epidemiological investigations and laboratory testing for country-level implementation within the Greater Horn of Africa; Launching the Regional Network for Quarantines; NEALCO membership drive and awareness campaigns; and NEALCO Benchmarking visit to feedlots and slaughterhouse in South Africa and Botswana.

Disease Situation in IGAD countries during 2015

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Introduction

In this report, the animal disease situation in IGAD Member States during 2015 as per reports submitted to ARIS between January and December 2015 is presented. Major species reported on included Avian, Bovine, Caprine, Ovine, Canine, Equine and Porcine.

The major challenges regarding submission of disease data to ICPALD was none submission of data as per the recommendations made during a Regional Technical Back-stopping workshop for ARIS-Country Administrators from the IGAD region held in Naivasha in May 2015. It must be noted that data submission is severely affected by the poor disease reporting from the grassroot-level to the national ARIS Office that most countries experience. Despite undertaking missions on disease reporting in 2015, countries are yet to strengthen disease reporting at grassroot level.

Reporting status of Countries within the IGAD region

Six countries from the IGAD region submitted disease reports through ARIS during 2015. They included Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda. Unfortunately, no disease reports were submitted by Djibouti and South Sudan. Major reasons for this state of affairs might have been as a result of the conflict situation in South Sudan and the general situation of absence of diseases normally experienced by Djibouti.

Countries	Disease reporting status
Djibouti	Nil
Eritrea	Yes
Ethiopia	Yes
Kenya	Yes
Somalia	Yes
South Sudan	Nil
Sudan	Yes
Uganda	Yes

Table 1: Disease Reporting Status of IGAD Member States during 2015

Disease outbreak situation in the IGAD region during 2015

During 2015, six ountries reported disease outbreaks within the IGAD region, representing a 16.7% decline in the number of countries that reported disease outbreaks in 2014. Overall, a total of 1673 outbreaks, 13,081 cases and 5645 deaths were reported in 2015. This represents an increase of 56.8% in the number of reported outbreaks and a decline of 24.1%, 62.1% and 42.9% in the number of reported disease outbreaks, cases and deaths, respectively, as compared to 2014. A total of 22 diseases were reported within the IGAD region. Diseases with the highest number of outbreaks, included

Rabies (291), Lumpskin Diseases (196), Sheep and Goat Pox (180), Anthrax (166), Haemorrhagic Septicaemia (138), Foot-and-Mouth (108) and Blackleg (106) (Table 2).

Diseases with the widest spread in the region as per the number of countries reporting in 2015 included, Anthrax (5), Blackleg (5), Brucellosis (5), FMD (5), PPR (5), Rabies (5) and SGP (5).

Regarding morbidity, the diseases with highest reported morbidity rates included Gumboro disease (52.4%), followed by small hive beetle infestation (17.9%) and African swine fever (11.3%). In terms of mortality rate, the diseases with the highest reported mortality rate included, African swine fever (7.8%), followed by Small hive beetle infestation (3.9%), Gumboro disease (2.9%) and Anaplasmosis (2.4%).

All major transboundary animal diseases were reported within the IGAD region during 2015. Rabies, Lumpskin Disease, Sheep and Goat Pox, Anthrax, Haemorrhagic Septicaemia, Foot-and-Mouth Disease and Blackleg had the largest number of outbreaks, while Anthrax, Blackleg, Brucellosis, FMD, PPR, Rabies and SGP had the widest spread, having been reported in the highest number of countries in the IGAD region. In addition, Rabies and Anthrax were the major zoonoses reported in terms of number of outbreaks and spread. This implies that regional disease control programmes within the IGAD region should focus more on diseases such as FMD, PPR, Brucellosis, Lumpskin Diseases, Sheep and Goat Pox, Haemorrhagic Septicaemia, Blackleg, Anthrax and Rabies. The reports suggested that there might be inadequate control measures for diseases with the highest number of outbreaks. Conducting of a detailed risk analysis is recommended for such diseases in order to ascertain factors maintaining their spread in affected countries.

Disease	Countries	Outbreaks	Susceptible	Cases	Deaths	Morbidity	Mortality	fatality rate
African Horse Sickness	3	33	111101	1087	112	1.0%	0.1%	10.3%
African Swine fever	2	19	1239	140	97	11.3%	7.8%	69.3%
Anaplasmosis	4	16	2424	155	57	6.4%	2.4%	36.8%
Anthrax	5	166	373683	841	326	0.2%	0.1%	38.8%
Babesiosis	2	4	2000	112	21	5.6%	1.1%	18.8%
Bee disease (small hive beetle infestation	1	7	280	50	11	17.9%	3.9%	22.0%
Blackleg	5	106	271152	767	127	0.3%	0.0%	16.6%
Brucellosis	5	50	11318	176	6	1.6%	0.1%	3.4%
Contagious Bovine Pleuropneumonia	4	26	10409	151	43	1.5%	0.4%	28.5%
Contagious Caprine Pleuropneumonia	3	55	93896	1514	230	1.6%	0.2%	15.2%
Dermatophilosis	1	3	9145	15	1	0.2%	0.0%	6.7%
Foot and Mouth Disease	5	108	392194	4630	172	1.2%	0.0%	3.7%
Gumboro Disease (infectious Bursal Disease)	1	5	2620	1372	77	52.4%	2.9%	5.6%
Haemorrhagic Septicaemia	4	138	386091	2526	773	0.7%	0.2%	30.6%
Lumpy skin disease	4	196	1971218	6679	404	0.3%	0.0%	6.0%
New castle Disease	4	43	176392	2910	1313	1.6%	0.7%	45.1%
Peste Des Petits Ruminantes	5	87	595007	4786	864	0.8%	0.1%	18.1%
Rabies	5	291	58436	495	274	0.8%	0.5%	55.4%
Rift Valley Fever	1	2	2500	2	0	0.1%	0.0%	0.0%
Sheep and Goat Pox	5	180	582162	4076	610	0.7%	0.1%	15.0%

Table 2: Disease outbreak situation in IGAD region during 2015

Theileriosis	2	65	9157	325	92	3.5%	1.0%	28.3%
Trypanosomosis	4	73	5404	272	35	5.0%	0.6%	12.9%
		1673	5067828	33081	5645	0.7%	0.1%	17.1%
Overall								

Losses by species during 2015

In terms of losses, a total of 5634 animals died, while 236 were slaughtered and 86 destroyed as a control measure against disease outbreaks, giving a total number of animals lost during 2015 from IGAD region as 5956 (Table 3). African swine fever (69.3%), followed by Rabies (55.4%), Newcastle Disease (45.1%) and Anthrax (38%) had the highest case fatality rates. The highest losses were registered among Bovine (2194), followed by Caprine and Ovine (1561), Avian species (1390) and Canine (307). This suggests that more efforts should be directed towards controlling cattle diseases such as Haemorrhagic Septicaemia, Lumpyskin Disease, FMD, Anthrax and Blackleg, Then small ruminant diseases such as Sheep and Goat pox and PPR, and Poultry diseases such as Newcastle Disease and Gumboro Disease. In addition, efforts should be directed towards control of canine diseases such as Rabies, a zoonosis.

Table 3:	Losses	by	species	during	2015

Species	Deaths	Slaughtered	Destroyed	Losses
Bovine	2057	114	23	2194
Caprine & Ovine	1474	72	15	1561
Avian	1390	0	0	1390
Canine	274	1	32	307
Caprine	230	26	15	271
Porcine	97	23	0	120
Equine	112	0	1	113
Overall	5634	236	86	5956

Distribution of outbreaks according to different species within the IGAD region during 2015

The percentage outbreaks distributed by species in IGAD region during 2015 is showed in Figure 1. The highest number of outbreaks was reported among bovine, followed by canine and caprine and ovine.



Figure 1: Percentage of outbreaks distributed by species in IGAD region during 2015

Development of bilateral agreements by Djibouti, Ethiopia, Somaliland and Somalia to support harmonization and coordination of veterinary activities in cross-border areas

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Introduction

A cross-border meeting was held in Addis Ababa, Ethiopia from 4th to 6th May 2016 to initiate development of binding agreements between Ethiopia and Djibouti; between Ethiopia and Somaliland; between Djibouti and Somaliland; and between Ethiopia and Somalia. Its main purpose was to provide a framework for stronger cooperation and collaboration between countries along bilateral borders in order to address disease surveillance, disease control and timely sharing of animal health and trade information. The meeting brought together 36 participants from Djibouti, Ethiopia, Somaliland and Somalia, IGAD, AU-IBAR and Oxfam. Participants consisted of Veterinary staff and Administrators and Foreign Affairs Experts from National Governments. Others were Experts from NGOs and Experts from IGAD and AU-IBAR.



Participants at the cross-border meeting for Djibouti, Ethiopia, Somaliland and Somalia in Addis Ababa, 4-6 May 2016

Major achievements of previous cross-border meetings

Major achievements of the SMP-AH project regarding harmonization and coordination of the control of transboundary animal diseases in the Greater Horn of Africa through the development of the Standard Methods and Procedures-guidelines developed for nine priority diseases and for export quarantine were highlighted during the meeting. Achievements following cross-border meetings previously held in Mwanza in Tanzania, Gulu in Uganda and Dire Dawa in Ethiopia in 2014 included (1) a vaccination campaign implemented in Kajiado and Narok counties in Kenya in March 2015; (2) MoU between Ethiopia and Kenya drafted in May 2015; (3) MoU between Kenya and Tanzania drafted in November 2015; (4) inclusion of South Sudan in the agreement binding Uganda, Kenya and South Sudan during a meeting held in Moroto during June 2015; (5) harmonization of health certification and strengthening of surveillance and disease reporting at entry and border points between Djibouti, Somaliland and Puntland in a meeting held in Djibouti in August 2015; (6) a

national training for veterinary inspectors and veterinary officers to improve control of transboundary animal diseases in border districts and border entry points in Uganda held in Kampala from 26th to 29th October 2015; and (6) a vaccination campaign against Foot-and-Mouth Disease conducted in cross-border areas in Uganda along the Uganda-Tanzania in December 2015.

Development of draft bilateral MOUs

Four teams were individually tasked to identify key cross-border issues that justified development of the agreements. The MoU were designed to address the identified key issues. Each team then developed the MoU step-by step.

Bilateral Agreement for the Djibouti-Somaliland Border

A Memorandum of Understanding between the Republic of Djibouti and Somaliland on cross-border cooperation on animal health and sanitary measures was drafted.

Scope of cooperation

Regarding the scope of cooperation, the cross-border cooperation on Animal Health and Sanitary Measures would be implemented in the identified areas of the regions of Arta and Ali-Sabieh in the Republic of Djibouti and the identified areas of the regions of Awdal and Salal of the Republic Somaliland as illustrated in the in the map (**Figure 2**).



Figure 2: Map showing cross-border areas between Djibouti and Somaliland identified for cooperation

Objective

The objective of the Memorandum of Understanding was to enhance cooperation and joint coordination on agreed animal health issues and sanitary measures to enhance livestock production and trade for improved community livelihoods in cross-border areas.

Areas of cooperation

The two countries agreed to cooperate in the following areas;

• Control of transboundary animal diseases including Foot-Mouth-Disease, Contagious caprine pleuropneumonia, Peste des Petits Ruminantes, Sheep and Goat Pox, Camelpox, Rift Valley

fever, Brucellosis, Rabies and vectors through surveillance, vaccination, reporting, information sharing and awareness creation for communities.

- Mapping of livestock markets and natural resources (water and pasture), including control of invasive weeds
- Enforcement of regulations on veterinary drugs and vaccines use
- Access to livestock-related infrastructure including Diagnostic Laboratories, Cold Chain, and Holding Grounds (Quarantines)
- Joint capacity building of stakeholders
- Promotion of Cross-border networking among stakeholders
- Mobilize resources (financial, infrastructure and personnel) to achieve the agreed animal health issues and sanitary measures

Bilateral Agreement for the Ethiopia-Somaliland Border

A Memorandum of Understanding between the Government of the Federal Democratic Republic of Ethiopia and Somaliland on cross-border cooperation in regard to animal health and sanitary measures was drafted

Scope of cooperation

The cross-border cooperation and collaboration in regard to animal health and sanitary measures would be implemented in the identified areas of the regions of –Ethiopia-Somali Region in the Federal Republic of Ethiopia and the identified areas of the regions of Awdal, Maroodijeh, Togdheer and Sool of Republic of Somaliland as illustrated in the Map (Figures 3a & b).



Figure 3a: Awdal, Maroodijeh, Togdheer and Sool regions of Somaliland



Figure 3b: Ethiopia-Somali Regional state of Ethiopia

Objective

The objective of the Memorandum of Understanding was to enhance cross-border cooperation and collaboration in regard to animal health and sanitary measure for purposes of improving community livelihoods.

Areas of cooperation

The two countries agreed to cooperate in the following areas;

- Timely disease reporting
- Harmonization of treatment and vaccination campaigns of transboundary animal diseases
- Joint platforms for discussion of animal health issues
- Enforcement of regulated livestock movement
- Formal mechanism for frontline animal health workers operating in cross-border areas to meet and work together.
- Infrastructure in cross-border areas, including animal health posts, water holding structures, veterinary impute supply and forage
- Controlled transboundary animal diseases, including Foot-and-Mouth disease, Peste des Petits Ruminantes, Sheep and Goat Pox, Contagious Caprine Pleuropneumonia, Camelpox, Brucellosis.
- Joint capacity building of stakeholders
- Commitment of resources (financial, infrastructure and personnel) to achieve the agreed cross-border cooperation and collaboration in regard to animal health and sanitary measure.

Bilateral agreement for the Ethiopia-Somalia border

A Memorandum of Understanding between the Federal Democratic Republic of Ethiopia and the Federal Republic of Somalia on cross-border cooperation and coordination on animal health and sanitary measures was drafted.

Scope of cooperation

In regard to scope of cooperation, the cross border cooperation and coordination on Animal Health and Sanitary Measures would be implemented in the identified areas of Somali Regional State in the Federal Democratic Republic of Ethiopia and identified areas of Jubbaland State, South-West State, Galmug State, Puntland State and Hiran –Middle Shabelle State in the Federal Republic of Somalia. As illustrated in the Map (**Figure 4a & b**).



Figure 4a: Ethiopia-Somali Regional State



Figure 4b: Jubbaland State, South-West State, Galmug State, Puntland State and Hiran –Middle Shabelle State in the Federal Republic of Somalia

Objective

The objective of the Memorandum of Understanding was to enhance cross-border bilateral cooperation and joint coordination on agreed animal health issues and sanitary measures to improve community livelihoods and develop livestock export trade.

Areas of cooperation

The two countries agreed to cooperate in the following areas;

- Control of trans-boundary animal diseases FMD, CBPP, PPR, CCPP, Blue tongue, ASF, SGP, RVF, Rabies, LSD, Camel Pox, HS, Anthrax, Blackleg, Trypanosomiasis, Brucellosis, and Ectoparasites and other emerging diseases through surveillance, vaccination, reporting, information sharing, livestock movement control, awareness creation for communities.
- Mapping of stock routes, livestock markets and natural resources (water and pasture), including control of invasive weeds
- Enforcement of regulations on veterinary drugs and vaccines use
- Facilitation of livestock trade through quality control and certification
- Access to Livestock related infrastructure including Diagnostic Laboratories, Cold Chain, and Holding Grounds (Quarantines)
- Joint promotion of Livestock Identification and Traceability
- Joint capacity building of stakeholders
- Promotion of Cross-border networking among stakeholders
- Commit resources (financial, infrastructure and personnel) to achieve the agreed animal health issues and sanitary measures

Bilateral agreement for the Ethiopia-Djibouti Border

A Memorandum of Understanding between the Federal Democratic Republic of Ethiopia and the Republic of Djibouti on cross-border cooperation and collaboration on animal health and sanitary measures was drafted.

Scope of cooperation

As regards the scope of cooperation, the cross border cooperation and collaboration on Animal Health and Sanitary Measures would be implemented in the identified areas of the Regions of Afar Regional State and Ethiopian Somali Regional State in the Federal Republic of Ethiopia and the identified areas of the regions of Ali Sabieh, Dikhil and Tadjourah Regions of the Republic of Djibouti as illustrated in the Map (**Figure 5**).



Figure 5: Ali Sabieh, Dikhil and Tadjourah Regions of the Republic of Djibouti

Objective

The objective of the Memorandum of Understanding was to enhance cross-border bilateral cooperation, collaboration and joint coordination and implementation of agreed animal health actions and sanitary measures for purposes of improving community livelihoods.

Areas of cooperation

The two countries agreed to cooperate and collaborate in the following areas;

- Control of trans-boundary animal diseases i.e. FMD, CBPP, PPR, CCPP, Blue tongue, Anthrax, SGP, Camel Pox, RVF, Pasteurellosis, Middle East Respiratory Syndrome Corona Vires of Camel, Trypanosomiasis (Surra), Brucellosis and also Ecto- parasites, and other emerging diseases through surveillance, vaccination, reporting, information sharing, livestock movement control, awareness creation for communities.
- Mapping of stock routes, livestock markets and natural resources (water and pasture), including control of invasive weeds.
- Developing and or rehabilitating strategic grazing reserve and water point.
- Enhance Accessibility of veterinary drugs and vaccine.
- Enforcement of regulations on veterinary drugs and vaccine.
- Control of livestock movements through permit, and facilitate livestock trade through health inspection and certification.
- Access to cross-border livestock related infrastructure including Mobile clinic, Diagnostic Laboratories, Cold Chain.
- Joint promotion of Livestock Identification and Traceability system
- Joint capacity building of stakeholders.
- Promotion of Cross-border Information sharing among stakeholders.
- Commit resources (financial, infrastructure and personnel) to achieve the agreed animal health issues and sanitary measures

Strengthening disease recognition and reporting in cross-border areas as a means to improve passive surveillance

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Sensitization workshop in Ethiopia

As a follow-up on the bilateral SMP-AH cross-border workshop for Ethiopia and Kenya held at Nanyuki from 18th to 21st May 2015, Ethiopia embarked on sensitization of frontline agents during 2016, targeting those working along Ethiopia-Kenya border areas. This was for purposes of equipping them with sufficient knowledge regarding disease recognition, surveillance and reporting. A total of 35 participants from Oromia Regional State, SNNP, Ethiopia Somali Regional State, NAHDIC, MOLF Epidemiology Unit, AU-IBAR and ICPALD were involved.



Sensitization of Frontline Animal Health Workers from cross-borders in Ethiopia during a national workshop held at Hawassa, May 2016

Major challenges

Major challenges discussed that humper the prevention and control of TADs in cross-border areas along the Ethiopia-Kenya border included the following:

- Absence of legal frameworks for control of livestock movements across borders
- Free livestock movement across the borders following seasonal droughts
- Absence of clear guidelines for cooperation on animal disease management from both sides (Ethio-Kenya)
- Presence of slight skill gaps in filling the paper-format for monthly disease outbreak especially at district level
- Difficulty in accessing adequate information from pastoralists as a result of their continuous mobile

- Tribal conflicts across borders making disease control difficult
- Presence of different serotypes of FMD creating a challenge towards vaccine matching before selection of appropriate FMD vaccine
- Inadequate supply of good quality FMD vaccine
- Absence of regular meeting between communities living in cross-border areas along the Ethiopia –Kenya border regarding TADs control

Suggested solutions

Necessary solutions required included the following:

- Legal frameworks on animal movement should be developed
- Initiate regular meetings to update communities living in cross-border areas along the Ethiopia-Kenya border on the border disease situation
- Organize frequent training for frontline animal health workers in order to improve coverage and quality of the national animal health surveillance standards
- Hold similar sensitization workshops to further elucidate the SMP and the syndromic manuals
- Organize awareness campaigns for communities living in cross-border areas along the Ethiopia-Kenya border on the importance of TADs control



Participants at a workshop on passive disease surveillance, reporting, and dissemination of SMPs in Border areas in Uganda held at Hotel free zone from 31st -2nd June, 2016

Sensitization workshop in Uganda

As a follow-up on regional cross-border meeting held in Gulu in 2014 by Uganda, Kenya and South Sudan, Uganda embarked on sensitization of field veterinarians working along Uganda-South Sudan border areas to equip them with sufficient knowledge regarding disease recognition, surveillance and reporting. A total of 50 participants from the border districts of Nebbi, Zombo, Arua, Maracha, Koboko, Yumbe, Adjumani, Amuru, Nyoya, Gulu, Kaabong, Pader, including Senior Veterinary Inspectors from Northern and North-western, and officials from Entebbe Headquarters and AU-IBAR attended the workshop.

Major topics discussed

Participants were taken through the following topics:

- The Syndromic manual and its pictorial clinical presentation of various disease cases
- Work plans for implementation of passive surveillance and reporting at the local level
- Recent innovations in animal disease reporting, including ARIS 2 and EMPRES-1
- Good practices in sample collection and accompanying data regarding case history, name and address, tests requested, dates of samples, species concerned and sex of species
- Methods of sample collection, packaging and submission of samples for disease detection to district and central laboratories
- Sample collection procedures for acaricides including testing
- Levels of animal disease surveillance.
- Relevant policies, bills, and animal health laws and regulations
- Veterinary inspection activities and strategies in the country

Rolling out Standard Operating Procedures for epidemiological investigations and laboratory testing for country-level implementation within the Greater Horn of Africa

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Dissemination of Standard Operating Procedures for laboratory testing to Veterinary staff in Tanzania

Further to the regional workshop held at Dar-es-Salam, Tanzania in February 2016 on Standard Operating Procedures for Epidemiological Investigation and laboratory testing, a National Workshop was conducted in Mwanza in June 2016 with the main objective of disseminating the Lab SOPs for routine use. A total of 45 participants from National Laboratories under TVLA, and Zonal Veterinary Centres in Tanzania attended the workshop.



Participants at the National Laboratory Training and Launching SMP-AH harmonized SOP for SMP priority Diseases in Tanzania held at TVLA Center, Mwanza, Tanzania, June 2016

Sample packaging, transportation and storage was discussed as part of capacity building for laboratory staff to improve laboratory testing procedures and enhance disease detection, capacity to respond to disease outbreaks and proficiency of disease diagnosis. The training also offered opportunity to continue rolling-out of the laboratory component of SMPs.

Laboratory Standard Operating Procedures disseminated included the following:

• Extraction of African swine fever virus nucleic acid for polymerase chain reaction

- Detection of African Swine virus by conventional polymerase chain reaction
- Indirect ELISA for the detection of brucellosis (Multispecies)
- Rose Bengal test for diagnosis of brucellosis
- Competitive ELISA for the detection of brucellosis
- CBPP Competitive ELISA Assay
- CCPP Competitive ELISA Assay
- Indirect Sandwich ELISA for detection of FMDV antigens
- FMD NSP cELISA
- Detection of FMD virus antibodies using the virus neutralization test
- Haemogglutination Inhibition Test for diagnosis of Newcastle Disease Virus.
- Competitive ELISA for PPR
- Taqman Real-time PCR for diagnosis of PPR Virus
- Competitive ELISA for detection of anti-RVFV Nucleoprotein IgG antibodies in Serum or Plasma
- Sample collection, packaging, transportation and storage



Participants at the National Laboratory Training and Launching of SMP-AH harmonized SOP during Rose Bengal Test practical performance, Mwanza, Tanzania, June 2016



Participants at the National Laboratory Training and Launching of SMP-AH harmonized SOP during PPR Test practical performance, Mwanza, Tanzania, June 2016

Validation of Standard Operating Procedures for Epidemiological Investigation

A Validation Workshop for Standard Operating Procedures for epidemiological investigations was held in Dar-es-Salaam, Tanzania from 22nd to 25th February 2016 with an overall objective of validating the SOPs. A total of 50 participants, drawn from Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan, Tanzania, Uganda, AU-PANVAC and AU-IBAR attended the workshop.



Participants at the SMP-AH validation workshop for Standard Operating Procedures for epidemiological investigations held at Dar-es-Salaam, Tanzania, 22-25 February 2016

Standard Operating Procedures validated included the following:

- SOP for epidemiological Investigation on Suspicion of an Outbreak of Peste des Petits Ruminants
- SOP for epidemiological Investigation on Suspicion of an Outbreak of Foot and Mouth Disease
- SOP for epidemiological Investigation on Suspicion of Outbreaks of Rift Valley Fever
- SOP for epidemiological Investigation on Suspicion of an Outbreak of Contagious Bovine Pleuropneumonia
- SOP for epidemiological Investigation on Suspicion of an Outbreak of Brucellosis
- SOP on emergency disease reporting and epidemiological investigation on Suspicion of the Outbreak of Transboundary Animal Disease
- SOP on collecting samples for laboratory testing on Suspicion of a transboundary animal disease
- SOP for passive surveillance of transboundary animal diseases
- SOP for active surveillance of transboundary animal diseases
- SOP on sero-surveillance for a transboundary animal disease
- SOP on participatory disease surveillance for transboundary animal diseases
- SOP on epidemiological surveillance of transboundary animal diseases in Wildlife
- SOP for the Decontamination of Groups of People at Entry and Exit Points to a Prescribed Premises or Zone
- SOP for the inspection of animals in-transit at Border Crossings or in Quarantine before and after Exportation or Importation
- SOP on Establishing Checkpoints for Animal Movement Control during an Outbreak of a Transboundary Animal Disease and a Stop-and-Search of Vehicles at Border Crossings



Participants at the validation workshop held in Dar-es-Salam, Tanzania, February 2016

Launching the Regional Network for Quarantines

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IGAD Centre for Pastoral Areas and Livestock Development & African Union-Interafrican Bureau for Animal Resources

Introduction

As a follow-up to the meeting held in Khartoum, Sudan from 30th September -1st October 2015 that initiated the Regional Network for Quarantines, a further meeting was held at Hargeisa from 5th to 6th June 2016 to launch the network amidst participation of stakeholders involved in quarantine stations and systems from the Greater Horn of Africa. A total of 23 participants drawn from Djibouti, Ethiopia, Kenya, Somalia (Somaliland, Puntland) South Sudan, Sudan and Uganda, AU-IBAR and ICPALD attended the meeting.



Participants at the meeting to launch the Regional Network for Quarantines held at Hargeisa, Somaliland, 5-6 June 2016

Visit to Berbera Saudi Emirates Quarantine in Somaliland

The team visited Berbera Saudi Emirates Quarantine on 5th June 2016. The quarantine facilities handled between 1 and 4 million small ruminants with about 200,000 camels and 200,000 cattle, annually. Laboratory tests are performed according to requirements of the importing countries. Trade in livestock is normally seasonal, fluctuating according to the seasonal demand of livestock by importing countries. The trade climax is normally during the festive period in the Middle East and North Africa.



Facilities at Berbera Saudi Emirates Quarantine, 5th June 2016

Djibouti country presentation

In Djibouti, Prima International Regional Quarantine is the key facility, whose main objective is to (1) apply sanitary requirements for export of disease-free livestock; (2) conduct research on livestock diseases and trade in the Horn of Africa; (3) promote livestock production in the region by opening market opportunities –a partnership with Ethiopian, Djibouti and Somali livestock traders; (4) to serve as a source of livestock market information in East Africa; (5) maintain sustainable livestock trade by applying strict sanitary measures in international livestock trade; (6) to act as a market source for fodder and concentrate feed for traders in the region; and (7) to provide short-term training for veterinarians and laboratory technicians.

The quarantine facility occupies a total area of 605 hectares. The facilities include the following: Diagnostic Laboratory, Pre-Quarantine, Station A and B, Station C, Administration Office, Post mortem hall, Slaughterhouse, General store, Garage, Incinerator, Feed store and others. The laboratory is equipped with the state of the art laboratory equipments and materials. Tests are done based on importing countries requirements. All the tests put as prerequisites by importing countries are done in the laboratory. Currently, Djibouti is setting up a port for export of livestock at Damerjog. This port will have the capacity of 2 million head of cattle per year. Major challenges faced by Djibouti include: (1) Political instability of the importing countries such as Yemen and Libya, (2) Emergence of new diseases such as MERSCoV, (3) Lack of national strategies on livestock, (4) scarcity of Livestock due to drought, and (5) exclusive dependence on few countries for livestock exports.



Participants visit the Berbera Saudi Emirates Quarantine facilities, 5th June 2016

Ethiopia country presentation

In Ethiopia, Mille guarantine covers an area of 600 hectares. Only 48 hectares have been utilized. holding 87 pens with 11 being for small ruminants and 76 for larger stock, including 44 for cattle and 30 for camels. The quarantine facility is planned for approximately 1.5 million sheep or goats, 4 million cattle and 6 million camels. The facility is planned to handle upto ten quarantine cycles per year with each cycle having 15,000 sheep and goats, 20,000 cattle and 4,000 camels, giving a total of 39,000 animals. The specific objectives of establishing quarantine facilities in Ethiopia were: (1) To certify Ethiopian animals as free from TADs; (2) To apply requirements for importing countries and other international standards to live animal export; (3) To prevent bans as a result of trade-related animal diseases; and (4) To sustain and further develop markets for Ethiopian live animals by increasing the competitiveness of the country at international markets. Currently, the principal quarantine has the following minimum provisions, (1) Main gate with foot and tyre bath for vehicle disinfection; (2) loading and unloading ramps; (3) working facilities such as crushes, spray races and scales; (4) livestock pens and shade areas; (5) feeding and watering troughs; (6) ground water and underground reservoirs; (7) feed stores and feed processing facilities; (8) isolation pens; (9) laboratory facilities; (10) refrigeration equipment and facilities; (11) vaccination and treatment equipment; (12) veterinary supply store, (13) emergency slaughter, post mortem and incineration facilities; (14) access roads and lighting; (15) electric power line and standby generator; (16) inner and outer fences; (16) staff houses and washing rooms; and (17) administration blocks. Putting in place of biosecurity measures, Standard Methods and Procedures, Standard Operating Procedures and laboratory testing Standard Operating Procedures is going on.

Major challenges experienced included, (1) Repeated livestock bans; (1983 RP KSA; 1997/98 RVF gulf states; 2000 RVF KSA and others; 2001 FMD KSA; 2006 FMD Egypt; 2007 RVF UAE; 2009 KSA sanitation; 2013/14 UAE sanitation); (2) Competition with other countries who have met health and quality standards; (3) Market limited to MENA; (4) Difficulties in accessing high priced markets; (5) Weak regional trade between countries; (6) Compliance with SPS; and (7) requirements are getting stringent.

Kenya country presentation

In Kenya, the Livestock Export Zone has been established at Bachuma in Taita Taveta County. In 2013, the Ministry adopted a holding ground – quarantine station linked concept. Bachuma Livestock

Export Zone is located at the former Bachuma LMD holding ground along Voi – Mombasa road. The Holding ground spans about 15,000 acres. It is surrounded by large ranches that are under lease to individuals and group ranchers. The selection of Bachuma was informed by its proximity to the port and is surrounded by ranches that have been used for the live animal export in Kenya previously. The programme is to be implemented in four components namely: (1) Animal health improvement, (2) Infrastructure improvement, (3) Livestock productivity improvement, and (4) Livestock marketing improvement. Currently, the following are being undertaken: (1) Construction of bio-security fence (Veterinary), (2) Construction of support facilities, and (3) The Government of Kenya has planned to establish two (2) export quarantine stations at Kurawa in Tana River County and Miritini in Mombasa County.

Major challenges experienced included, (1) Inadequate finances to meet huge financial investment required; (2) Lack of acceptable export certification and handling facilities and livestock marketing infrastructure such as holding grounds, quarantine stations, stock routes and sale yards in the country; (3) lack of a credible National Livestock Identification and Traceability System in Kenya that is critical in production, breeding, disease surveillance, food safety certification and food quality assurance; (4) failure to meet the EU and other valuable markets by Kenya; (5) free movement of livestock and livestock products across borders for pasture or trade pausing a challenge regarding control of TADs; (6) Change in governance structure after 2013 election, involving 47 counties each with its own disease control management style; (7) Different animal health regulations amongst the countries and uncoordinated disease surveillance and control programs, and (8) Recurrent livestock trade bans by importing countries.

South Sudan country presentation

In South Sudan, quarantine points and checkpoints have been established at Nimule along the South Sudan-Uganda border, Nadapal along the South Sudan-Kenya border, Kaya along the South Sudan-Uganda border and at Juba International Airport. Nimule quarantine point is the most active, handling upto 15,400 cattle, 40,505 goats, and 7,600 sheep. Torit quarantine point as well handles interstates livestock trade with a capacity of 30,000 cattle and 45,000 goats.

The major challenges experienced included, (1) Inadequate human, financial and physical resources; (2) Uncontrolled livestock movement; (3) Rampant Livestock diseases; (4) negative cultural and social attitude towards livestock marketing by livestock owners; (5) uncompleted infrastructure development at Nimule quarantine point; and (6) the landlocked nature of the country that increases the cost of doing business in South Sudan.

Sudan country presentation

Sudan has major quarantines in Swakin, Kassala, Alkadro, Nyala, Wadi Haifa, Elrahad, Khartoum Airport, Gedarif, Hamrat Elsheikh, Melit and Gelabat. Their annual target and working capacities are shown in Table 4.

Quarantine Centres	Annual Target C	apacity	Annual working capacity		
	Cattle/Camel Sheep/goats		Cattle/Camel	Sheep/goats	
Swakin	300000	7,000,000	288000	5,000,000	
Kassala	26000	1500000	24000	1440000	
Alkadro	106000	1800000	96000	1680000	
Nyala	20,000	500,000	0	0	
Wadi Halfa	600,000	1,000,000	360,000	0	
Elrahad	20000	900,000	12000	600,000	

Table 4: Quarantine Centres in Sudan and their capacities

Khartoum airport	500	1000	0	0
Gedarif	40000	2,500,000	0	1,800,000
Hamrat Elsheikh	6000	60000	0	0
Melit	30,000	500,000	0	0
Gelabat	100,000	50,000	12,000	0
Total	1,248,500	15,811,000	792,000	10,520,000

Source: Ministry of Livestock, Fisheries and Rangeland, Sudan

Uganda country presentation

Uganda is establishing a private quarantine facility at Nakaseke. The facility is owned by the Uganda Meat Producers Cooperative Union. It has a target capacity of 200 goats and 200 cattle per day. Major challenges experienced included (1) Feeding of animals; (2) Infrastructure improvement; (3) Unified standards; (4) Consistency of supply to facility; and (5) Low research and capacity building and disease outbreaks.

Presentation by Puntland State of Somalia

Bossaso is a major export quarantine facility in Puntland. It was established to (1) to promote the quality control of livestock exports executed along the entire value-chain; (2) to promote quarantine services; and (3) to boost the economic growth of exporters and importers.

Major port sanitary measures carried out at Bossaso quarantine facility, included (1) Export certification endorsed by private/public veterinarians for each administrative area – Somali Port veterinarian and expatriate veterinarians manning the quarantine facility; (2) physical examination of animals on entry into the quarantine facilities; (3) holding of animals for 2 to 3 weeks within segmented facilities; and (4) watering and feeding of animals on hay and concentrates supported by continuous clinical examination.

Major challenges experienced included, (1) livestock traders do not select animals according to quality as per import requirements in terms of grade, age and weight; (2) lack of awareness among livestock traders regarding compliance to veterinary regulations; (3) livestock traders purely concentrates on commercial transactions paying little attention to law and law enforcement; and (4) livestock transport ships cannot conveniently dock in Bossaso Port due to the shallow waters; (5) lack of synchronized information-sharing between public institutions and quarantine facilities; (6) inaccessibility to technical aspects by the competent authorities; (7) lack of technical and financial contributions from quarantines to the sections responsible for surveillance; (8) increased number of livestock consignments within limited period, jeopardizing smooth running of livestock trade; and (9) lack of awareness on increased WTO trade barriers which favor developed countries with high advanced technology rather than poor countries.

Key Recommendations

To Member States

- To allow free sharing of information within countries culminating from the network meetings
- To further roll out the SMP for Export Quarantine and SOPs

To the Regional network for quarantine

• To facilitate more visits to other quarantine stations for lesson-learning and best practices

• To mobilize resources for sustainability

To AU-IBAR and IGAD/ICPALD

- To expedite development of SOPs for markets, holding grounds, pre-quarantine, quarantine and post-quarantine practices and procedures
- AU-IBAR and ICPALD to support members in rolling out the SMP and SOPs
- Other partners to support regional network for quarantines

Way forward

- Facilitate network meeting every six months and one annual meeting with GCC countries supported by AU-IBAR and ICPALD
- Draft a strategic plan for the network (Dr Hadgo, David Adwok, Joshua Waiswa, Dr Issa, Dr Sheldrin, Dr Khalid) within the next three months
- To anchor the network with ICPALD and to have a responsible Desk Officer
- Dr Joshua Waiswa nominated as the secretary for the Regional Network for Quarantines
- ICPALD to introduce to FAO, Oxfam, OIE and other key stakeholders about the existence of the regional network for quarantine
- The next network meeting to be in Uganda in the third week of November 2016

NEALCO membership drive and awareness campaigns

Magona, J. W. & Ameha, S

IGAD Centre for Pastoral Areas and Livestock Development

NEALCO Membership drive and awareness campaign in Tanzania

A membership drive and awareness campaign for NEALCO in Tanzania was conducted in Bagamoyo from 4th to 6th April 2016 with an overall objective to initiate recruitment of national livestock associations into NEALCO. A total of 30 participants drawn from national livestock associations, including, Tanzania Livestock and Meat Traders Association, Tanzania Meat Processors Alliance, Tanzania Livestock Producers Association, Tanzania Poultry Breeders Association, Leather Association of Tanzania, Tanzania Milk Producer Association, Tanzania Milk Processors Association, and NEALCO Regional Executives and ICPALD attended the meeting.



Participants at the NEALCO Membership drive and awareness campaign in Tanzania, Bagamoyo, 4-6 April 2016

Key Meeting outcomes

Elected NEALCO National Executives for Tanzania for next three years:

- Mrs Doreen Maro-Chairperson
- Mr. Elibariki Mmari-Vice-Chairperson
- Mr. Magembe Makoye-Secretary
- o Mr. George Kanga-Assistant Secretary
- Mr. Ambrose Langu-Treasurer
- o Mr George Kifuko-Assistant Treasurer/Publicity

NEALCO National Chapter for Tanzania to be housed by:

Tanzania Milk Producer Association and Tanzania Milk Processors Association in Dar-es-Salaam. Contact: Mrs Doreen Elipokea Maro, National NEALCO Chairperson, Tel: +255 438 885, E-mail: <u>doreenmaro@yahoo.com</u>, <u>dorrycharity2015@gmail.com</u>

Registration with NEALCO:

Eleven national livestock associations and companies registered with NEALCO in Tanzania as members.

NEALCO membership drive and awareness campaign Uganda

A membership drive and awareness campaign for NEALCO in Uganda was conducted in Kampala from 18th to 20th May 2016 with an overall objective of initiating recruitment of national livestock associations into NEALCO. A total of 36 participants drawn from national livestock associations, including, Uganda Cattle Traders and Transporters Association, Ngoma Beef Producers' Association, Reline, Uganda Meat Producers Cooperative Union, Poultry Producers Association, Pig Producers Association, Uganda Leather and Allied Association, NEALCO Executives and ICPALD attended the meeting.



Participants at the NEALCO Membership drive and awareness campaign in Uganda, Kampala, 18-20 May 2016

Key Meeting outcomes

Elected NEALCO National Executives for Uganda for next three years:

- o Dr Joshua Waiswa Chairperson
- Mr Mwebe Emmanuel Vice Chairperson
- o Mr Juliet Mutesi Secretary

- Mr. Vicent Kisagala Assistant Secretary
- o Mr Kisenyi Titus Mpanga Treasurer
- Mr. Henry Kanyiike Assistant Treasurer

NEALCO National Chapter for Uganda to be housed by:

Uganda Meat Producers' Cooperative Union in Kampala, Uganda. Contact: Dr. Joshua Waiswa, National NEALCO Chairperson, Tel: +256 779342175, E-mail: <u>nabangijoshua@gmail.com</u>

Registration with NEALCO:

Seven national livestock associations registered with NEALCO in Uganda as members

NEALCO membership drive and awareness campaign in Sudan

A membership drive and awareness campaign for NEALCO in Sudan was conducted in Khartoum from 2nd to 4th June 2016 with an overall objective of initiating recruitment of national livestock associations into NEALCO. A total of 32 participants drawn from national livestock associations, including, Traders and Producers-Sub-Chamber Mouleh Market-Khartoum State, Chamber of Agriculture and Animal Production-Sennar State, Sub-Chamber for Traders El-Salam Market-Khartoum State- dealing in sheep and goats, Chamber of Agriculture and Animal Production- South Kordofan, Chamber of Agriculture and Animal Production- White Nile State, Chamber of Meat Exporters, Chamber of Skin and Hides, NEALCO and ICPALD attended the meeting.



Participants at the NEALCO Membership drive and awareness campaign in Sudan, Khartoum, 2-4 June 2016

Key Meeting outcomes

Elected NEALCO National Executives for Sudan for next three years:

- Dr Khalid Magboul Chairperson
- Mr. Alsadlg Dafalla Vice Chairperson

- o Mr. Hussein Osman Ali Secretary
- Mr. Murwan Abdallah Assistant Secretary
- Mr.Muhammad Abdallah Idris Treasurer
- Mr. Jamal Musa Assistant Treasurer

NEALCO National Chapter for Sudan to be housed by:

The Union Chamber of Commerce, Khartoum, Sudan. Contact: Dr Khalid Magboul, National NEALCO Chairperson, P.O. Box 81, Khartoum, Sudan, Tel: +248-123000709, E-mail: <u>khmragaa@yahoo.com</u>.

Registration with NEALCO:

Seven national livestock associations registered with NEALCO in Sudan as members

NEALCO membership drive and awareness campaign in Ethiopia

A membership drive and awareness campaign for NEALCO in Ethiopia was conducted in Addis Ababa from 13th to 15th June 2016 with an overall objective of initiating recruitment of national livestock associations into NEALCO. A total of 39 participants drawn from national livestock associations, including, Ethiopian Poultry Producers and Processors Association, Ethiopian Honey and Beeswax Producers and Exporters Associations, Ethiopian Meat Producers and Exporters Association, Ethiopian Livestock Traders Association, Ethiopian Animal Feed Industry Association, Ethiopian Milk Processors Association and Ethiopian Raw Hides and Skins Suppliers Association, NEALCO and ICPALD attended the meeting.



Participants at the NEALCO Membership drive and awareness campaign in Ethiopia, Addis, Ababa, 13-15 June 2016

Key Meeting outcomes

Elected NEALCO National Executives for Ethiopia for next three years:

o Mr Fanta Terefe - Chairperson

- Mr. Meseret Adugna Vice Chairperson
- Mr. Abebaw Mekonnen Secretary
- Mrs Emebet Dejene Assistant Secretary
- Mr. Tilaye Geremew Treasurer
- Mr. Birhanu Abate Assistant Treasurer

NEALCO National Chapter for Ethiopia to be housed by:

The Ethiopian Animal Feed Industry Association at Kazanchis, Glory Building 3rd floor, Room No. 308, Addis Ababa, Ethiopia. Contact: Mr. Fanta Terefe, Nation NEALCO Chairperson, Tel: +251911491049, E-mail: <u>fanta_elere@yahoo.com</u>,

Registration with NEALCO:

Seven national livestock associations registered with NEALCO in Ethiopia as members

NEALCO membership drive and awareness campaign in Kenya

A membership drive and awareness campaign for NEALCO in Kenya was conducted in Naivasha from 27th to 29th June 2016 with an overall objective of initiating recruitment of national livestock associations into NEALCO. A total of 65 participants drawn from national livestock associations, including, Kenya Livestock Producers Association, Kenya Livestock Breeders Organization, Dairy Goats Association of Kenya, Rabbit Breeders Association of Kenya, Keekonyoike & Ndagureti Meat Traders Associations, Kenya National Dairy Producers Association, Kenya Dairy Traders Association, Kenya Poultry Breeders Association, Taveta Ranchers Association, Kajiado & Amboseli Livestock Marketing Association, Kenya Pigs farmers' Association, NEALCO and ICPALD attended the meeting.



Participants at the NEALCO Membership drive and awareness campaign in Kenya, Naivasha, 27-29 June 2016

Key Meeting outcomes

Elected NEALCO National Executives for Kenya for next three years:

• Mr Patrick Kimani Njema- Chairperson

- Mr Steven Mukundi Njagi Vice Chairperson
- Mr Justus Monda Secretary
- Mr Moses Ole Kinayia Assistant Secretary
- Mrs Alice Ruto Treasurer
- Ms Miriam Kirongo Assistant Treasurer

NEALCO National Chapter for Kenya and the Regional NEALCO Secretariat to be housed by:

Kenya Livestock Producers Association within their Nairobi and Kiambu offices, respectively. Contacts: Mr Patrick Kimani Njai Njema, Secretary, NEALCO and Chairman, National NEALCO Chapter for Kenya, P.O Box 7816-00300, Nairobi, Tel: +254722310996, E-mail: klpakenya@gmail.com

Registration with NEALCO:

Ten national livestock associations registered with NEALCO in Kenya as members

NEALCO Benchmarking visit to feedlots and slaughterhouses in South Africa and Botswana

Magona, J.W., Ameha, S., Tsuma, S., Munyua, S. M

IGAD Centre for Pastoral Areas and Livestock Development

Introduction

A NEALCO benchmarking visit was organized by ICPALD to feedlots and abattoirs to South Africa and Botswana from 25th to 29th April 2016. The overall objective of the visit was to allow NEALCO members learn good practices from large-scale feedlots and well-managed export abattoirs in South Africa and in Botswana. A total of 20 persons drawn from Ethiopia, Kenya, Somalia, South Sudan, Sudan, Tanzania, Uganda, NEALCO, ICPALD and USAID participated in the tour.

Beefcor Feedlot



Participants during the NEALCO Benchmarking visit to South Africa and Botswana, 25-29 April 2016



Visit to Beefcor Feedlot in South Africa, 25th April 2016

Beefcor feedlot normally buys calves weighing 180-200 kg (liveweight) from individual farms and feeds them to a target weigh of 290 kg (carcass weight). It has a capacity of 31,000 animals. Normally calve undergo backgrounding on pasture for 30-90 days. The calves spend a maximum of 120 days in the feedlot before they are sold to abattoirs for slaughter.



Cattle under feedloting in Beefcor, Pretoria, South Africa, 25th April 2016

The normal feed conversion rate is 6.3 kg per day on feed and 1.6 kg per day on grass. Animal slaughtered are sold as carcass or deboned meat.

Agricultural Research Council-Animal production Institute



Visit to Agricultural Research Council (ARC) - Animal Production Institute, 26th April 2016

Agricultural Research Council-Animal production Institute supports smallholder farmers to improve livestock production. Studies have shown that to break-even farmers in South Africa require an economical unit of about 150 beef cattle, 500 dairy cows and about 10,000 birds for poultry units. Youth programmes in agriculture are targeting agro-processing, ICT in agriculture and making information available in technology transfer programmes. Other programmes include integrated rural value-chains for poultry, training schools for agriculture, animal recording and improvement schemes, and DNA-based traceability systems.



Bull Testing Centre at ARC-API

ARC-API has embarked on beef improvement schemes for improving production using reproductive biotechnology, including artificial insemination services and embryo transfer.





Mobile Laboratory (trucks and inside the lab) at ARC-API for providing field-based reproductive testing services for smallholder farmers in South Africa

Mobile laboratory services are provided to smallholder farmers to help test sperm quality for breeding bulls to inform bull selection. Paternity tests and DNA analyzing studies are conducted. Key areas of focus are:

- Molecular genetics
 - o DNA paternity tests
 - Forensic DNA analysis for combating stock theft
- Germplasm conservation and reproductive biotechnologies
 - Cryo-preservation, artificial insemination, estrus synchronization, and embryo transfer
- Quantitative genetics
 - R&D to develop breeding values and optimal mating systems

South African Red Meat Producers

The red meat producers keenly apply well-researched information and knowledge in their production programmes. Their production is based on the following:

- Application of better technology / management
- Application of higher intensification / production systems
- Empowered production environment / government
- Commercialization of emerging sector

• Pro-active engagement of Government to render essential services

The red meat producers association conducts studies to understand consumer preference to understand how to improve red meat production while targeting the right market segment. It also conducts public awareness to increase consumption of red meat.

Visit to Sernick feedlot in South Africa

Sernick Bosmara value-chains embraces feedloting, bull stud, export abattoirs, meat wholesale and retail businesses, with each business being run independently without subsidy between enterprises.



Sernick Bosmara Value-chains

His production and business management is strictly informed by market information and through knowledge of the operations undertaken within Sernick value-chain business.



Participants visiting the Sernick feedlot in South Africa, 27th April 2016



Bosmara cattle on Sernick feedlot, 27th April 2016

Visit to Botswana Meat Commission, Lobatse Botswana



Participants inside the slaughter plant of Botswana Meat Commission in Lobatse, Botswana, 29th April 2016

Botswana Meat Commission (BMC) buys calves from farmers who are members of Botswana Beef Farmers' association. BMC then contracts Beta Feedlot to feed them until they reach a slaughter weight. It raises a maximum of 7,500 calves for 120 days at a cost of 3.75 pula a day. BMC provides feed and pays for the services of Beta feedlot.



Identification of newly introduced calves at Beta feedlot in Lobatse Botswana, 29th April 2016

Key Good practices

- Weaner cattle between the ages of 180-220 days are purchased from mainly commercial producers. Cattle weigh between 160-300kg's at purchase
- On arrival at the feedlot cattle are backgrounded for between 1-3 months. They are fed hay and are fed a high concentrate diet of mostly maize corn once per day
- Molasses is a large component of the diet in feedlots.
- Despite heavy rainfall the drainage is good. When building a feedlot always ensure that you have a slope of at least 2%
- Holding pens are replaced every 15 years and costs approximately R12 million per group of five pens to rebuild
- Always put your water troughs in the fence so that it services two holding pens
- A Biogas plant was erected at a cost of R140 million 3 years ago. The payback is expected to be 7 years
- It's important to have functional, high impact research institutes to assist both the emerging and commercial sector.



• The BMC is a public/private partnership with industry All commercial producers pay a levee per animal slaughter

Key Lessons- learnt

Producers and Feedlot Industry

- The Success of the Feedlot industry in South Africa and Botswana can be attributed to the quality (genetics) and feeding regimes of the commercial and smallholder (emerging) producers.
- Most feedlots prefer to feed Bos-Indicus x Bos-Taurus cross animals
- Rotational grazing preserves the land, creates more feed and allows the animals to grow properly.
- The Feedlot industry is closely linked to byproducts of other industries, for example molasses from the Sugar can industry, Brewers grain from Beer or pulp from fruit. The maize industry provides a significant portion of the feed.

- A feedlot is a low margin, high throughput business. The smaller feedlots (<500 animals) struggle to survive when the feed margins turn and feed becomes expensive
- Over the last decade the carcass size coming from the feedlot has increased markedly from 220kg's to over 260 kg's
- Backgrounding of young animals is now an integral part of the industry. Backgrounding means that animals are fed grass/hay and high concentrate diets once per day.
- Animals are brought into the feedlots at approximately 180 -220 days of age and then backgrounded for 2-3 months before entering the feedlot.
- Most feedlots will feed animals 3 times per day
- There is a strong selection process for bulls of superior genetic merit and also efficient converters of feed.
- Feed efficiency is measured in both government and private test stations
- Animals start with a starter ration (95% concentrate) mixed with either maize silage, brewers grain or the equivalent. They then finish the diet with 98% concentrate

Retailers

- South African and Botswana retailers are moving to pre-packaged (boxed) meat.
- Most of the cuts now sold by the retailers are the high value cuts
- Retailers use the Lifestyle Measure Index to target the industry
- Over 60% of all beef is now sold by the 4 large retailers, compared to 10 years ago when it was largely the small butcher shops

Abattoirs

- The BMC in Botswana has access to the lucrative European export market
- Less than 20% of the export animals contribute 80% of the income
- Botswana has a National traceability system
- The BMC rewards producer for providing heavy and young animals

Government support and research

- Government provides very little support to the commercial industry in South Africa but does provide the emerging/stallholder sector with support, especially training.
- The ARC is well resourced and works closely with both the emerging, smallholder and commercial sector

Industry structure

- The peak industry body is called the RMIF. It is the umbrella body for organizations such as the Emerging Red Meat Producers organization, Red Meat Producers organization, Feedlot organization, Hides and skins, Abattoir.
- A statuary levee is managed by industry for R&D and marketing and to also run the classifications system.