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INTERAFRICAN BUREAU FOR  
ANIMAL RESOURCES

## IGAD Report



Findings of the stock-taking exercise in the  
Intergovernmental Authority on Development

# INTEGRATED REGIONAL COORDINATION MECHANISM

## IRCM

For the prevention and control of  
Trans-boundary Animal Diseases  
and Zoonoses in Africa



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# Contents

Acknowledgments .....	4
List of acronyms .....	5
Executive Summary .....	7
<b>PART I: INTRODUCTION AND OVERVIEW.....</b>	<b>9</b>
1. Introduction .....	9
1.1 Background.....	9
1.2 Rationale and methodology.....	10
<b>PART II: MAIN FINDINGS.....</b>	<b>11</b>
1. General overview of IGAD.....	11
1.1 The socio-economic situation.....	11
1.2 Structure and Governance.....	11
2. Animal Health.....	14
2.1 Overview of the livestock sector.....	14
2.1.1 Importance of the livestock sector .....	14
2.1.2 Production and Trade .....	14
2.1.3 Bio-security measures .....	15
2.2 Overview of the Wildlife sector .....	15
2.2.1 Importance of the wildlife sector.....	15
2.2.2 Role of wildlife in the epidemiology of AHI, TADs and other zoonoses.....	17
2.2.3 Wildlife health services .....	19
2.3 Status and impact of AHI, TADs and other Zoonoses.....	20
2.3.1 Status and impact of AHI outbreaks .....	20
2.3.2 Status and impact of TADs outbreaks .....	21
2.3.3 Status and impact of other Zoonoses outbreaks .....	22
2.4 Overview of the Performance of Veterinary Services (PVS) in the MS .....	23
2.4.1 Human, physical and financial resources.....	23
2.4.2 Technical authority and capability.....	24
2.4.3 Interaction with stakeholders .....	26
2.4.4 Access to markets.....	27
2.5 The role of IGAD in strengthening veterinary service capacities .....	28
2.5.1 Legislative frameworks and harmonization.....	28
2.5.2 Coordination of MS veterinary services .....	28
2.5.3 Regional networks.....	28
2.5.4 Emergency Management.....	29
2.5.5 Cross border harmonization .....	29
3. Human Health .....	30
3.1 Overview of the health delivery systems.....	30
3.1.1 IHR (2005) implementation.....	30
3.1.2 Policies and regulatory frameworks for prevention and control of epidemic and pandemics.....	31
3.1.3 Capacity of IGAD to support MS in public health delivery systems .....	31
3.1.4 Inter-REC harmonization and coordination mechanisms.....	31
3.2 Surveillance and laboratory services.....	31
3.2.1 Integrated Disease Surveillance & Response (IDSR), International Health Regulations 2005 (IHR-2005)	31
3.2.2 Laboratory diagnostic capacity.....	32
3.2.3 Outbreak investigation systems and capacity .....	32
3.2.4 Regional Networks.....	32
3.3 Epidemic and Pandemic Preparedness and Response Measures .....	32
3.3.1 Partnerships.....	32
3.3.2 IGAD capacity to cooperate and interact with public health services of Member States and other REC32	

3.3.3	Disease information sharing and communication mechanisms.....	32
4.	Communication.....	33
4.1	Public Awareness .....	33
4.1.1	Overview of communication plans/strategies at MS and REC levels.....	33
4.1.2	Coordination mechanisms for communication and awareness campaigns.....	33
4.1.3	Advocacy and outreach.....	34
4.1.4	Level of education/literacy .....	34
4.2	Technical capacities .....	35
4.2.1	Technical Assistance.....	35
4.2.2	Communication units in national veterinary services.....	35
4.2.3	Capacity in ICTs.....	36
4.3	Mass media Environment .....	36
4.3.1	Media coverage of AHI, ERADs and other Zoonoses.....	36
4.3.2	Media Campaign on AHI, ERADs and other Zoonoses .....	36
4.3.3	Communication networks, including the involvement of the NGO sector.....	37
5.	Coordination.....	38
5.1	Sectoral coordination within IGAD .....	38
5.2	Capacity development.....	40
5.3	Coordination with other RECs.....	40
6.	Partnership.....	41
6.1	Assistance to IGAD in control of TADs and zoonoses .....	41
6.2	Coordination mechanism between IGAD and technical and financial partners.....	41
PART III: CONCLUSION AND RECOMMENDATIONS.....		42
1.	CONCLUSION.....	42
2.	RECOMMENDATIONS.....	42
ANNEXES .....		44
Annex 1: IRCM Guidelines.....		44
Annex 2. Tables and Figures .....		57
Annex 3: List of figures and tables .....		61
Annex 4. Consulted Documents.....		62

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Prof. Ahmed A. A. Elsalwalhy, Director/Head of Mission

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## List of acronyms

<b>AEC</b>	African Economic Community
<b>AI</b>	Avian Influenza
<b>AI.COMM</b>	USAID's Avian Influenza Communication
<b>AHI</b>	Animal (Avian) and Human Influenza
<b>AHS</b>	African horse sickness
<b>ALive</b>	ALive Platform, Partnership for Livestock Development, Poverty Alleviation & Sustainable Growth in Africa
<b>ARIS</b>	Animal Resources Information System
<b>ASF</b>	African swine fever
<b>AU</b>	African Union
<b>AUC</b>	African Union Commission
<b>AUC/DSA</b>	African Union Commission/ Department of Social Affairs
<b>AU-IBAR</b>	Africa Union Inter-African Bureau for Animal Resources
<b>BSE</b>	Bovine Spongiform Encephalopathy
<b>BTB</b>	Bovine tuberculosis
<b>CBPP</b>	Contagious Bovine Pleuro-Pneumonia
<b>CDC</b>	Centre for Disease Control
<b>CCPP</b>	Contagious Caprine Pleuro-pneumonia
<b>COMESA</b>	Common Market for Eastern and Southern Africa
<b>CSF</b>	Classical Swine Fever
<b>CVO</b>	Chief Veterinary Officer
<b>DPSA</b>	Direction de la Production et de la Santé Animales (DRC)
<b>DPT</b>	Digital Pen Technology
<b>EAC</b>	East African Community
<b>EC</b>	European Commission
<b>ECOSOCC</b>	Economic, Social and Cultural Council of the African Union
<b>ECTAD</b>	Emergency Centre for Trans-boundary Animal Diseases
<b>EPP</b>	Emergency Preparedness Plan
<b>EID</b>	Emerging Infectious Diseases
<b>ERAD</b>	Emerging and Re-emerging Animal Diseases
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FMD</b>	Foot and Mouth Disease
<b>FTA</b>	Free Trade Area
<b>GDP</b>	Gross domestic product
<b>GF-TAD</b>	Global Framework for the progressive control of Trans-boundary Animal Diseases (FAO & OIE)
<b>GLEWS</b>	FAO, OIE & WHO - Global Early Warning and Response System for Trans-boundary animal Diseases including Zoonoses
<b>HIV/AIDS</b>	Acquired Immuno-deficiency virus/ acquired immune-deficiency syndrome
<b>HPAI</b>	Highly Pathogenic Avian Influenza
<b>IDSR</b>	Integrated Disease Surveillance and Response
<b>IFPRI</b>	International Food Policy Research Institute
<b>IGAD</b>	Intergovernmental Authority on Development
<b>IGADD</b>	Intergovernmental Authority on Drought and Development
<b>IHR</b>	International Health Regulations (2005)
<b>ILRI</b>	International Livestock Research Institute
<b>INAP</b>	Integrated National Action Plan
<b>IPPC</b>	International Plant Protection Convention
<b>IRAPP</b>	IGAD's regional HIV/AIDS partnership program
<b>IRCC</b>	Integrated Regional coordination Committee
<b>IRCM</b>	Integrated Regional Coordination Mechanism
<b>ISSB</b>	International Standard Setting Body
<b>IUCN</b>	International Union for Conservation of Nature
<b>JTF</b>	Joint Task Force
<b>KEPOFA</b>	Kenya Poultry Farmers Association
<b>KWS</b>	Kenya Wildlife Service
<b>LPI</b>	Livestock Policy Initiative

<b>LSD</b>	Lumpy Skin Disease
<b>MCF</b>	Malignant catarrh fever
<b>MDGs</b>	Millennium Development Goals
<b>MoU</b>	Memorandum of understanding
<b>NCAA</b>	Ngorongoro Conservation Area Authority
<b>NGO</b>	Non-Governmental Organizations
<b>ND</b>	Newcastle Disease
<b>NMTP</b>	National Medium Term Priority Plan
<b>NTFs</b>	National Taskforces
<b>OCHA</b>	Office for the Coordination of Humanitarian Assistance
<b>OFFLU</b>	Joint OIE-FAO global network of expertise on animal influenzas
<b>OIE</b>	World Organization for Animal Health
<b>OWOH</b>	One World One Health
<b>PIC</b>	Pandemic Influenza Contingency
<b>PPE</b>	Personal Protection Equipment
<b>PPR</b>	Peste des Petits Ruminants
<b>PS</b>	Partner States
<b>PVS</b>	Performance of Veterinary Services
<b>QA</b>	Quality-Assurance
<b>RAHC</b>	Regional Animal Health Centre
<b>RBD</b>	Rwanda Development Board
<b>REC</b>	Regional Economic Community
<b>RVF</b>	Rift Valley Fever
<b>SADC</b>	Southern African Development Community
<b>SEARG</b>	Southern and Eastern Africa Rabies Group
<b>SERECU</b>	Somalia Ecosystem Rinderpest Eradication Coordination Unit
<b>SG</b>	Secretary General
<b>SOPs</b>	Standard Operating Procedures
<b>SPINAP-AHI</b>	Support Program to the Integrated National Action Plans-Animal Human Influenza
<b>SPS</b>	Sanitary and Phyto-Sanitary Agreement (WTO)
<b>SSA</b>	Sub-Saharan Africa
<b>STCs</b>	Specialized Technical Committees
<b>STIs</b>	Sexually transmitted infections
<b>TA</b>	Technical Assistance
<b>TADs</b>	Trans-boundary Animal Diseases
<b>TANAPA</b>	Tanzania National Parks
<b>TAWIRI</b>	Tanzania Wildlife Research Institute
<b>TCP</b>	Technical Cooperation Project (FAO)
<b>TWGs</b>	Technical Working Groups
<b>UNEP</b>	United Nations Environmental program
<b>UNICEF</b>	United Nations Children's Fund
<b>UNISIC</b>	UN System Influenza Coordinator
<b>UN-OCHA</b>	United Nation's Office for the Coordination of Humanitarian Affairs
<b>USAID</b>	United States Agency for International Development
<b>UWA</b>	Uganda Wildlife Authority
<b>VS</b>	Veterinary Services
<b>VSB</b>	Veterinary Statutory Body
<b>WAHIS</b>	World Animal Health Information System
<b>WAHID</b>	World Animal Health Information Database
<b>WCS</b>	Wildlife Conservation Society
<b>WHO</b>	World Health Organization
<b>WTO</b>	World Trade Organization
<b>WVU</b>	Wildlife Veterinary Units

## Executive Summary

The IRCM stocktaking and analysis mission to the Intergovernmental Authority for Development (IGAD) Secretariat in Djibouti was undertaken from 4<sup>th</sup> to 12<sup>th</sup> July 2010 with a stakeholder consultative workshop held on 9-10 August 2010 in Nairobi. The task involved literature review, interviews with key personnel at the IGAD Secretariat, collaborating institutions, cooperating partners and feedback from the consultative workshop. The following is a summary of the main findings, conclusions and recommendation.

IGAD is a regional inter-governmental body of the Horn-of Africa countries: Djibouti, Ethiopia, Eritrea, Kenya, Somalia, Sudan, and Uganda, which was created as a successor to the Intergovernmental Authority on Drought and Development (IGADD). The Heads of State and Government signed a "Letter of Instrument to amend the IGADD Charter / Agreement" establishing the revitalized IGAD with a new name "The Intergovernmental Authority on Development". The revitalized IGAD, with expanded areas of regional cooperation and a new organizational structure, was launched by the IGAD Assembly of Heads of State and Government on 25 November 1996 in Djibouti, the Republic of Djibouti. IGAD is mandated to promote programs aimed at realizing the objectives of COMESA and the African Economic Community (AEC)

In accordance with the Agreement establishing IGAD, the Secretariat is the executive organ of the Agency. The Secretariat is assisted by two institutions based in Addis Ababa, Ethiopia, IGAD Capacity Building Programme against Terrorism (ICPAT) and Early Warning and Early Response Mechanism secretariat (CEWARN). To address its mandate, IGAD has established a governance structure with the following four organs: the Assembly of Heads of State and Government, the Council of Ministers, the Committee of Ambassadors and the Secretariat (headed by an Executive Secretary). The Executive Secretary is assisted by four Directors heading Divisions of Economic Cooperation and Social Development; Agriculture and Environment; Peace and Security; and Administration and Finance. Livestock falls under the Division of Agriculture and Environment and has a Programme Manager responsible for Agriculture, Livestock and Food Security. There is no specific office responsible for livestock sectoral activities. At Ministerial level, this division reports to IGAD ministers responsible for agriculture and animal resources. Under the IGAD's Regional Food Security Strategy, livestock interventions covering livestock policy, livestock information, animal disease control, marketing information, and harmonization of SPS standards have been undertaken.

Two IGAD countries (Djibouti and Sudan) experienced outbreaks of HPAI in 2006. The disease has since been eliminated in both countries. In the absence of a regional strategy international organizations (FAO, AU IBAR, OIE, WHO, UNICEF, World Bank, etc) played a crucial role in assisting the infected and non-infected countries in the region through specifically defined prevention and management support programmes.

The IGAD region is endowed with significantly high livestock population that contribute substantially to the social and economic wealth of the IGAD people. However, its contribution to poverty reduction remains untapped. About 15% of the GDP in IGAD countries (excluding Somalia) is derived from livestock. In Ethiopia livestock is ranked as the highest agricultural activity occupying the lives of almost 80% of the people. In Sudan, livestock is ranked second after petroleum in economic importance, and employs 60% of the population. The region is also the highest exporter of live animals within and outside Africa. Considering the high number of livestock and sizable degree of national and cross border animal movement, the Region is burdened with a very large number of diseases such as FMD, CBPP, PPR, ND and RVF. On the other hand, management of animal diseases has never been a top priority at IGAD level compared to other RECs, such as EAC and SADC. CBPP is endemic in IGAD region and the region is the worst affected in Africa, with Ethiopia and Uganda accounting to 82.4% of all CBPP cases reported in Africa in 2008 and 86.7% of all CBPP deaths in the same year. FMD is prevalent in all of IGAD Member States with Ethiopia being the epicentre. Like most of the regions in Africa, Newcastle Disease (ND) is endemic in IGAD and periodic epidemics occur in different countries. More than 90% of all poultry deaths in rural poultry establishments are related to Newcastle disease. Another important TAD is the Rift Valley Fever. The recent outbreaks of RVF in Kenya and Tanzania resulted in domestic and international ban on livestock trade both in Kenya and the Middle East with devastating effect on the region. Rabies is among the endemic zoonotic diseases presumed to occur in all IGAD countries. From 2006-2008 Rabies was reported in five out of the six IGAD Member States. Most of the livestock trade in the region i.e. over 95%<sup>1</sup> is informal hence very difficult to trace. Lack of information on cross border livestock trade is a major concern in prevention and control of TADs and zoonoses in the region since live animals that are traded are a potential sources of infections.

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<sup>1</sup> The Regulatory Framework for Trade in IGAD, IGAD LPI Working Paper 07, 2008

Biodiversity conservation and wildlife management are considered national priorities in all IGAD MS. Over 10% of the national landmass is protected national parks, forests, game and marine reserves. Livestock and wildlife share vast rangelands and watering points. Some wild animal species are natural reservoirs for important TADs such as FMD, malignant catarrh fever (MCF), African swine fever (ASF) and African horse sickness (AHS).

Some of the IGAD Member States, such as Ethiopia, Sudan, Kenya and Uganda have wildlife veterinary units within the ministries responsible for wildlife, though capacities of most IGAD countries for wildlife health services are weak or non-existent. A few countries, however, have relatively stronger units and there is potential for capacity sharing within the region.

The OIE missions for the assessment of the Performance of Veterinary Services (PVS) in the Region included Djibouti (2007), Eritrea (2009), Kenya (2007), Sudan (2009), and Uganda (2007). Somalia and Ethiopia had requested the PVS valuation but are yet to be evaluated.

The IGAD secretariat does not operate or collaborate with any epidemiology and or laboratory networks. In spite of the absence of a regional platform for epidemio-surveillance and laboratory networks some national epidemiology units are very active in disease surveillance such as the ones in Ethiopia, Kenya, Uganda and Sudan.

The standardized six building block of the health system which are service delivery, health work force, information medical products, vaccines and technologies, health financing are still weak in the IGAD region. Most MS do not have measures for epidemic disease emergency preparedness, response and control. IGAD does not have health protocol nor published acts on health matters. However, Uganda and Kenya) have established AHI rapid response teams and have already carried out simulation exercise along with EAC Partner States. IGAD has a regional HIV/AIDS partnership program (IRAPP) medical technical team based in Kampala, Uganda.

Although every IGAD MS has its own communication strategy for the prevention and control of a limited number of TADs (e.g. HPAI), there is no formal coordination mechanism for animal health communication at the IGAD Secretariat level. Communication activities in the region were mostly supported by donor supported projects such as the Pan African Rinderpest Campaigns (PARC) and the Pan African Campaign against the Epizootics (PACE). FAO, OIE, UNICEF, APHIS-USDA, AED, WB, AU-IBAR, and others provided immediate technical and financial assistance in various forms to reinforce communication in the veterinary services during the major economic diseases outbreaks. Regional Economic Communities (RECs) as one of the anchoring ideals of African unity are recognized as AU's building blocks for regional and continental economic integration with the potential to resolve the continent's major economic constraints and development issues that transcend national boundaries. They are therefore the ideal institutions in which to anchor regional coordination mechanisms specifically targeting the prevention and control of animal and human influenza (AHI), trans-boundary animal diseases (TADs) and other zoonoses.

An Integrated Regional Coordination Mechanism (IRCM) for the prevention and control of TADs and zoonoses is proposed. The IRCM aims at strengthening the capacity of IGAD and other RECs to coordinate and harmonize disease prevention and control actions implemented by Member States through capacity building, promotion of inter-sectoral coordination and institutionalization of coordination procedures and practices while promoting the "One Health" concept. The need for such a mechanism has been expressed at several fora in Africa and globally, especially after the waves of outbreaks of the Highly Pathogenic Avian Influenza (HPAI) subtype H5N1 that started in 1997 and the appearance of Severe Acute Respiratory Syndrome (SARS) in 2002 and the pandemic caused by the novel A (H1N1) influenza virus in 2009.

# **PART I: INTRODUCTION AND OVERVIEW**

## **I. Introduction**

### **I.1 Background**

Trans-boundary animal diseases (TADs) and zoonoses, including emerging diseases, represent a major constraint to the development of the predominantly rural economy of the African continent. Twelve of the major animal diseases are present in Africa. Animal diseases alone are responsible for 20% loss in production thus impacting negatively on human health in terms of malnutrition and deficiency of protein and micro-nutrients derived from milk, eggs and meat. Most diseases that affect humans directly are caused by multi-host pathogens, and majority (816 out of 1407) is shared with animals and is therefore classified as zoonotic. Indeed, TADs and zoonoses also present a major barrier to international, regional and domestic trade. The threats of emerging and re-emerging infectious diseases are likely to increase in response to intensification of animal production to meet the demand of rapidly growing urban communities, faster movement of people and livestock across national and regional borders and ecosystems, amplified interaction between domestic and wild animals, and the increased commercialization and consumption of bush meat and other wildlife products. Furthermore, global warming and climate change are encouraging the spread of pests and invasive species and could increase the range of some diseases.

Enhanced capacity for early disease detection at the source, and the ability to promptly activate preventive and control measures are crucial for managing the risks associated with emerging and re-emerging infectious diseases. Addressing the complex and diverse factors that cause the emergence and dissemination of infectious diseases requires effective inter-sectoral collaboration and coordination at the biological, social, economic and political levels. Better control of TADs and zoonoses should enhance the free movement of people and goods within the Regional Economic Communities (RECs) and the continent thus leading to effective regional and continental economic integration.

The Organization of African Unity (OAU) Charter and the Constitutive Act establishing the African Union embraced and recognized the need for an inter-African cooperation and integration in order to achieve the objectives of socio-economic and political development and stability of the continent. However, the challenges are very huge because, compared to other developing continents Africa has the largest number of countries characterized by small national markets, limited economic competitiveness, under-development infrastructure and high production costs. These factors hinder the development of viable agricultural industries and limit inter-African and global trade. Moreover, Africa faces many emerging challenges including diseases, climate change, conflict, technological advancements, and regionalism amid globalization. African leaders recognize now more than ever the urgency of accelerating integration with a view to resolving these constraints in order to create a united and prosperous Africa. The Lagos Plan of Action and the Abuja Treaty establishing the African Economic Community (AEC) spell out the economic, political and institutional mechanisms for attaining this vision.

The Regional Economic Communities (RECs) are recognised as African Union's building blocks for regional and continental economic integration. Furthermore, the United Nations considers building the capacity of the RECs as one of the primary instruments needed to achieve a multi-sectoral response to the Food Crisis Challenge in Africa as well as that of the Climate Change. For this reason, the Economic Commission for Africa (ECA) in consultation with other UN Agencies and the AUC has initiated a dialogue with RECs to establish coordination mechanisms at REC level referred to as Sub-regional Coordination Mechanisms (SRCM). The SRCM are intended to minimize fragmentation, reduce transaction costs, realize economies of scale, and ensure a more coordinated and coherent UN System-wide support to regional integration efforts and agenda. The RECs are therefore ideal institutions to lead the development and implementation of the regional coordination mechanisms specifically targeting the prevention and control of AHI, TADs and other zoonoses. Such mechanisms can greatly enhance the capacities of PS to counter disease threats and promote inter-regional and international trade in livestock commodities, thus contributing to regional integration. This fits well with the overarching development frame for the African continent shaped by the New Partnership for Africa's Development (NEPAD) and the Comprehensive Africa Agriculture Development Program (CAADP).

An Integrated Regional Coordination Mechanism (IRCM) for the prevention and control of TADs and Zoonoses in line with the political and development agenda of the AU, is proposed. The mechanism aims to strengthen the capacity of RECs to coordinate and harmonize disease prevention and control actions implemented by PS through capacity building, promotion of inter-sectoral coordination and institutionalization of coordination procedures and practices. The Mechanism will focus initially on a limited number of TADs and zoonoses prioritized by the RECs. The medium-term objective is to expand the IRCM's scope to address other relevant TADs and zoonoses, and as such the Mechanism will be instrumental in promoting the "One Health" concept at national, regional and continental levels. The IRCM model could be expanded in the future to address other animal resources and NRM issues.

## 1.2 Rationale and methodology

Livestock rearing is a very important social and economic activity in the predominantly rural African continent, which is blessed by extensive and diverse ecosystems and terrain suitable for livestock farming. The domestic animal resources are very diverse including but not limited to cattle, chickens, ducks, goats, pigs, equines (horses and donkeys), turkeys and ostriches. Traditionally, farm animals are a source of food, skins, fertilizer, traction power, medicine and other raw materials. Overall, the livestock sector contributes to about one third of the continent's agricultural GDP. In spite of its significant potential livestock production in Africa is constrained by a multitude of technical, socio-economic and climatic factors. For example, domestic livestock raising in the vast trypanosomiasis infected areas is limited to small numbers of poor performing indigenous species. Also there are several diseases transmitted from wild life to domestic animals.

The need to strengthen inter-sectoral collaboration and improve regional coordination in the prevention and control of TADs and zoonoses has been expressed at several fora in Africa and globally, especially after the outbreaks of the Highly Pathogenic Avian Influenza (HPAI) subtype H5N1 that started in 1997 and the appearance of Severe Acute Respiratory Syndrome (SARS) in 2002. HPAI's zoonotic nature and its potential to change into a form that is highly transmissible between humans sparked a global pandemic threat that has largely driven its control efforts since 2003. As part of the global HPAI control effort, the African Union Interafrican Bureau for Animal Resources (AU-IBAR) organized two technical meetings<sup>2</sup> in 2009. The objective of the meetings was to raise awareness of the pandemic threat among the decision makers, technical experts, international organizations, and development partners at national, regional and continental level. The Addis Ababa meeting was held immediately after the declaration of a pandemic caused by the novel A (H1N1) influenza virus, and was attended by 119 participants from 48 African States, and representatives from several Donors, international and regional organizations (EC, USAID, WHO, FAO, WCS, UN-OCHA, OIE, CDC, IFPRI and EAC). The main aim of this meeting was to raise awareness among the policymakers on the impact of Avian and Human Influenza (AHI), advocate for more support and better coordination of interventions in Africa, share experiences and lessons learned and build consensus on how to strengthen coordination mechanisms for prevention and control of AHI and other zoonoses in Africa. The deliberations of the Addis Ababa meeting underscored the need for stronger inter-sectoral collaboration and effective regional coordination in the control of AHI as well as other TADs and zoonoses. A major recommendation was to develop an integrated regional coordination mechanism (IRCM) for the prevention and control of TADs and Zoonoses in Africa at REC and Inter-REC levels. The plan for the development of the IRCM was established after a series of meetings organized by, AU-IBAR which involved AUC's Department of Social Affairs, FAO, OIE and WHO. The process for development of the mechanism, specific guidelines and the terms of reference for a team of experts to undertake the review of RECs as the initial phase prior to the IRCM formulation are attached (Annex 1). This stocktaking and analytical report is a product of the IGAD review exercise, based on a desk-top analysis of existing documents and the dialogue with IGAD Secretariat and its Member States (MS), and other stakeholders.

The Overview of the performance of Veterinary Services presented for the Member States is based on the reports from PVS Evaluations. The OIE Tool for the Evaluation of Performance of Veterinary Services (OIE PVS Tool) was developed with the aim of supporting the NVSs to establish their level of performance, identify gaps and weaknesses in their ability to comply with OIE international standards, and to form a shared vision with stakeholders (including the private sector), with the goal of establishing priorities and securing the investments needed to carry out strategic initiatives. The PVS evaluations are conducted by OIE upon request from the country and the report obtained is considered confidential unless authorized by the country for sharing with others.

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<sup>2</sup>Addis Ababa meeting, 18-21 August 2009; and Naivasha meetings, 18-21 October 2009. Both meetings were organized through the Support Program to Integrated National Action Plans on Avian and Human Influenza (SPINAP-AHI),

## PART II: MAIN FINDINGS

### I. General overview of IGAD

#### I.1 The socio-economic situation

IGAD has a combined population of more than 212 million, a land area of 5.2 million Km<sup>2</sup> and combined Gross Domestic Product of \$140 billion (2009 estimates).

The IGAD Member states (MS) are diverse and have different resources, opportunities and problems in as much as they have commonalities. As shown in Table 1, MS vary in land resources, economic parameters (e.g. agricultural GDP, overall GDP), and population density and in the extent by which each country is achieving the MDGs (poverty reduction, education, health, gender equality, child mortality, etc). Also, the MS differ in the extent by which post independence experiences have impacted on demography, political and civil stability. The HDI is low in all IGAD countries (0.414-0.531). There is also wide gap between countries in per capita GDP (USD295 to USD 1,376). These facts underscore the challenges facing IGAD to achieve effective integration. However, IGAD's record and strive to strengthen its governance and coordination structures are an encouraging assurances that it could play a very important role in advancing the economic development in the region through collaboration and integration.

Table 1: Socio-economic data of IGAD Member States

Country	Surface <sup>1</sup> (Km <sup>2</sup> )	Population <sup>1</sup> (1,000)	HDI <sup>2</sup> (2007)	GDP <sup>1</sup> (Million US\$)	GDP per capita <sup>1</sup> ( US\$)	Agric. GDP <sup>1</sup> (%)
Djibouti	23,200	864	0.520	1,023	1,207	3.7
Eritrea	117,600	5,073	0.472	1,470	295	n.a.
Ethiopia	1,104,300	82,825	0.414	25,163	295	47.5
Kenya	592,909	39,802	0.541	41,896	1,087	26.1
Somalia	637,660	9,133	n.a.	n.a.	n.a.	n.a.
Sudan	2,505,813	42,272	0.531	54,270	1,376	31.5
Uganda	241,038	32,710	0.514	16,611	521	22.5
Total	5,222,520	212,679				

#### I.2 Structure and Governance

The Intergovernmental Authority on Development (IGAD) was created in 1996 to supersede the Intergovernmental Authority on Drought and Development (IGADD) which was founded in 1986. In April 1995 in Addis Ababa, the Assembly of Heads of State and Government made a Declaration to revitalize IGADD and expand cooperation among member states. On 21 March 1996, in Nairobi, the Assembly of Heads of State and Government signed a "Letter of Instrument to Amend the IGADD Charter/Agreement" establishing the revitalized IGAD with a new name "The Intergovernmental Authority on Development". The Revitalized IGAD, with expanded areas of regional cooperation and a new organizational structure, was launched by the IGAD Assembly of Heads of State and Government on 25 November 1996 in Djibouti, the Republic of Djibouti.

The main objectives of IGAD are to:

- Promote joint development strategies and gradually harmonize macro-economic policies and programs in the social, technological and scientific fields;
- Harmonize policies with regard to trade, customs, transport, communications, agriculture, and natural resources, and promote free movement of goods, services, and people within the region.
- Achieve regional food security and encourage and assist efforts of Member States to collectively combat drought and other natural and man-made disasters and their natural consequences;
- Initiate and promote programs and projects to achieve regional food security and sustainable development of natural resources and environment protection, and encourage and assist efforts of Member States to collectively combat drought and other natural and man-made disasters and their consequences;
- Promote peace and stability in the region and create mechanisms within the region for the prevention, management and resolution of inter-State and intra-State conflicts through dialogue;
- Mobilize resources for the implementation of emergency, short-term, medium-term and long-term programs within the framework of regional cooperation;
- Promote and realize the objectives of the Common Market for Eastern and Southern Africa (COMESA) and the African Economic Community (AEC);

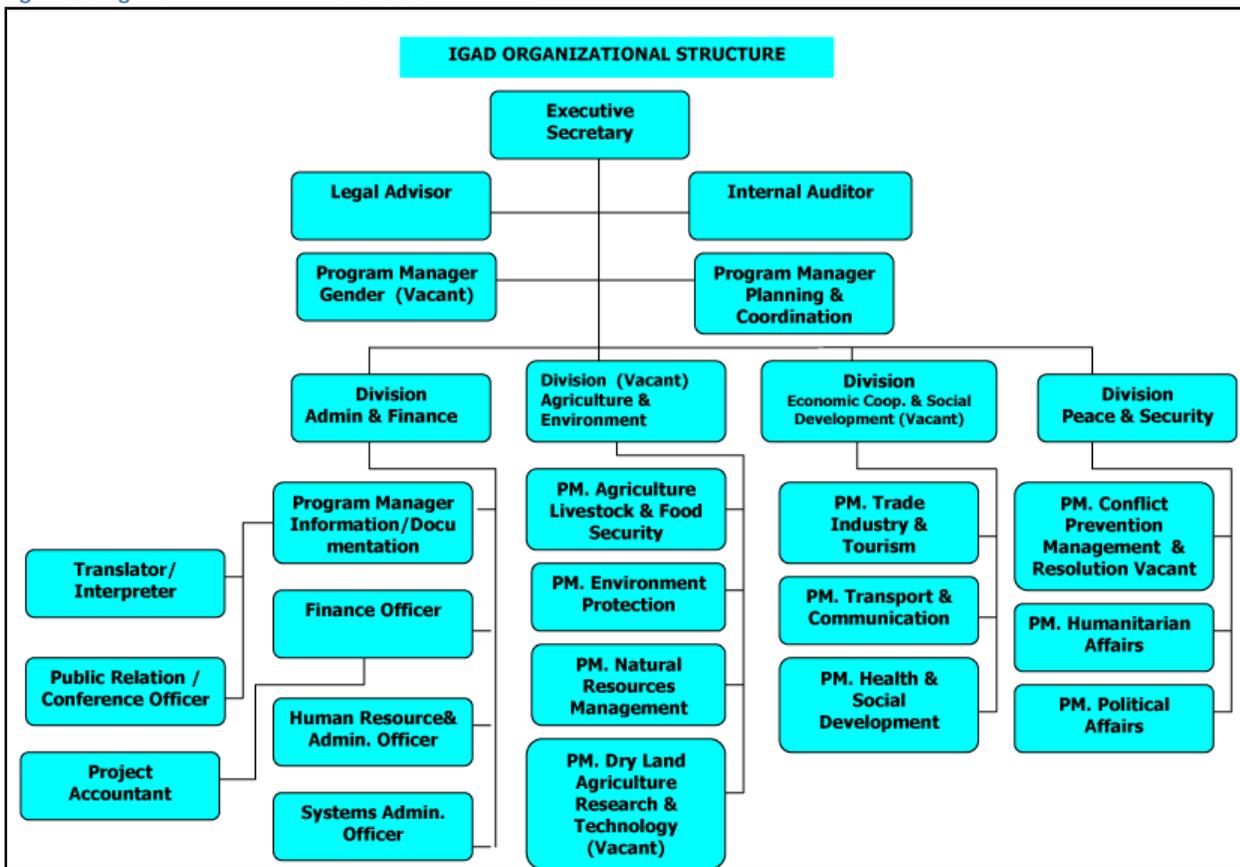
- Facilitate, promote and strengthen cooperation in research development and application in science and technology

In order to achieve its objectives, IGAD has established the following organs:

- The **Assembly of Heads of State and Government** which is the supreme policy making organ of the Authority. It determines the objectives, guidelines and programs for IGAD and meets once a year. A Chairman is elected from among the MS in rotation.
- The **Council of Ministers** composed of the Ministers of Foreign Affairs and one other Focal Minister designated by each MS. The Council formulates policy, approves the work program and annual budget of the Secretariat during its biannual sessions.
- The **Committee of Ambassadors** comprised of IGAD MS' Ambassadors or Plenipotentiaries accredited to the country of IGAD Headquarters. It convenes as often as the need arises to advise and guide the Executive Secretary.
- The **Secretariat** is headed by an Executive Secretary appointed by the Assembly of Heads of State and Government for a term of four years renewable once. The Secretariat assists MS in formulating regional projects in the priority areas, facilitates the coordination and harmonization of development policies, mobilizes resources to implement regional projects and programs approved by the Council and reinforces national infrastructures necessary for implementing regional projects and policies.

The Executive Secretary is assisted by four Directors heading the following Divisions: Economic Cooperation and Social Development; Agriculture and Environment; Peace and Security; and Administration and Finance plus twenty-two regional professional staff and various short-term project and technical assistance staff. The organizational structure of IGAD is illustrated in Figure 1

Figure 1: Organizational structure of IGAD Secretariat



The development agenda of IGAD in the Agriculture, Livestock and Food Security Program Area is shaped by the Regional Food Security Strategy drawn up for the period 2005 - 2008. The Strategy envisages regional actions for boosting food production, improving marketing and providing safety nets for vulnerable populations.

In accordance with the Agreement Establishing IGAD, the Secretariat is mandated to promote programs aimed at realizing the objectives of COMESA and the African Economic Community. The IGAD Secretariat is assisted by two institutions

based in Addis Ababa, Ethiopia, IGAD Capacity Building Programme Against Terrorism (ICPAT) and Early Warning and Early Response Mechanism secretariat (CEWARN).

The Division of Economic Cooperation and Social Development is responsible for the overall co-ordination of regional development co-operation in the areas of trade, industry, tourism, transport infrastructure and communication as well as issues of social development focusing on education, health, labor, migration, and youth affairs among others. The Division also liaises with other organizations, agencies and co-operating partners, on regional, continental, and international matters. It has three program areas namely: Trade, Industry & Tourism; Transport and Communications; and Health and Social Development.

## 2. Animal Health

### 2.1 Overview of the livestock sector

#### 2.1.1 Importance of the livestock sector

The IGAD region is endowed with significantly high livestock population that contribute substantially to the social and economic wealth of the IGAD people. However, its contribution to poverty reduction remains untapped. The number of livestock in the region is estimated at over 15 million camels, over 119 million cattle, over 102 million goats, over 103 million sheep, over 2.5 million pigs and over 131 million chickens. About 15% of the GDP in IGAD countries (excluding Somalia) is derived from livestock. In Ethiopia livestock is ranked as the highest agricultural activity occupying the lives of almost 80% of the people. In Sudan, livestock is ranked second after petroleum in economic importance, and employs 60% of the population. Data on livestock production and trade are provided in Annex 2 (Table 11, 12, 13 and 14)

#### 2.1.2 Production and Trade

IGAD MS collectively produced in 2008 over 2.3 million metric tonnes of meat from the six major livestock species viz. camels, cattle, chickens, goats, sheep and pigs. The production data indicates that 1.3 million metric tonnes (MT) were from cattle, 0.14 million MT from camels, 0.14 million MT from chickens, 0.4 million MT from goats, 0.3 million MT from sheep and 0.08 million MT from pigs. In addition, during the same period, the region produced about 12 million litres of cow whole milk and 0.2 million MT of hen eggs. In spite of the fact that several countries in the Region are major livestock producers and exporters of livestock and livestock products, US \$ 145 million worth of milk and dairy products were imported in 2008. Livestock export varies between countries, and the majority is in the form of live sheep, camels and goats and cattle. Although the formal export sector has gained some grounds in the last few years, it is still meagre compared to the informal export. For example, a significant number of livestock moves, through informal export passages, from Ethiopia to Somalia, Kenya, Sudan and Djibouti. Although the majority of livestock is exported from Southern Somalia to Kenya via the Garissa market, livestock export to the Gulf countries from Somalia remains a major trade activity in spite of several decades of civil unrest in southern Somalia. Very significant numbers of livestock are traditionally exported from the Sudan to the Gulf States. This volume of external trade is considered the most significant in the Region. There is also formal and informal cross-border exports to Egypt and Libya. Kenya is the smallest exporter and a net importer of livestock through cross-border trade from its neighbours such as Somalia, Ethiopia and Tanzania.

#### Stakeholders in the value chain

The stakeholders (producers<sup>3</sup>, producers' associations, middlemen, transporters, traders, processors (e.g. formal /informal slaughter house (abattoirs) operators), traders, public and private service providers, NGOs, importers, exporters and consumers) along the livestock value chain regardless of their status have a role to play in assuring the safety requirements, and in monitoring possible occurrence and spread of diseases, and as such could contribute to efforts that aim to prevent or control TADs and Zoonoses. Some stakeholders are organised through national associations or cooperatives, but there are no regional fora that coordinates the engagement of the livestock stakeholders in efforts that aim to address threats from emerging or epidemic TADs and zoonoses.

#### Regulatory frameworks governing livestock trade at cross-border and REC levels

Livestock trade in the region is mostly governed by national laws and regulations such as the Animal Diseases Acts and the trade acts. The IGAD MS also subscribe to OIE and WTO regulations on livestock trade.

#### Distribution channels and potential role in transmission of TADs and zoonoses

Livestock distribution channels in the IGAD region follow official (with certifications and movement permits) and non-official routes. The key distribution channels are the periodic live animal markets mostly for ruminants and traditionally raised poultry. Also there are specialized distribution channels for pigs and commercial broilers. Similarly the slaughter and processing outlets are a mix of regulated abattoirs, and informal rural and urban slaughter slabs. Also home slaughter is

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<sup>3</sup> Livestock Producers in IGAD MS: e.g. pastoralists in Ethiopia, Sudan and Kenya, smallholders mixing cropping with livestock rearing; established ranch owners in Kenya, traditional poultry keepers and established poultry companies in most countries.

very common especially for most of the poultry, small ruminants and pigs. The predominance of unofficial (un-regulated) livestock movement, slaughter, processing and marketing is among the major reasons for the transmission of diseases within countries, between countries and even beyond the region. There is a significant livestock export market in the Region, mainly from Ethiopia, Somalia and Sudan. The animals are normally trekked from the production sites inland to the sea ports where they are ferried for export.

### **Annual volume of cross border trade within REC**

There is a significant official/ unofficial cross border livestock trade within and outside the IGAD Region. However, there are no reliable records of cross border animal movement, and in most cases the documented trade reports refer to the money value of imports and exports. Also there are reports based on incomplete statistics. For example the data from the International Trade Centre (ITC, 2008) reports mostly about trade figures outside the region and seldom report about within region trade. For example, the 2008 data shows, without disclosing the volume, that Ethiopia traded over 4 million US\$ worth of livestock to Sudan, and that Kenya traded US\$ 132,000 worth of livestock to Uganda, and that Sudan traded over US\$20 million worth of livestock to Egypt. Lack of information on cross border livestock trade is a major obstacle to developing a reliable strategy for the prevention and control of TADs and zoonoses in the region.

#### **2.1.3 Bio-security measures**

There is no regional bio-security strategy or guidelines. Each country has its own bio-security measures which were developed as part of the HPAI preparedness and response campaigns. The MS also use quarantines, certification of livestock movements, ante and post-mortem inspections, as means of preventing diseases incursions and spread. However, most of the bio-security practices are not directly supported by legal frameworks and, therefore, difficult to enforce.

## **2.2 Overview of the Wildlife sector**

### **2.2.1 Importance of the wildlife sector**

#### **State of biodiversity and wildlife in IGAD**

The IGAD region is endowed with a unique and rich wildlife heritage, and diversity of ecosystems ranging from the Red Sea coastal coral reefs to the gum Arabica woodlands of Sudan, extensive wetlands to savannah grasslands, afro-montane forests to deserts, and the central highlands of Ethiopia and Kenya which are important water catchments. With the exception of Uganda, all IGAD MS are predominantly arid and semi-arid with large stretches of tall and short savannah grasslands. Significant areas are wetlands, the most extensive being the catchments of the Nile basin (including Lake Victoria) stretching through Kenya, Uganda, Ethiopia, Eritrea and Sudan. These habitats host a rich diversity of both floral and faunal species. The sub-region has 531 known species of mammals, 1,446 known breeding bird species and 3,213 species of higher plants (Table 2). Eastern Africa has the highest numbers of endemic species of mammals (55%), birds (63%), reptiles (49%) and amphibians (40%) in Africa. At sub-regional level 10 areas have been identified and recognised as biodiversity hotspots due to their richer diversity and endemism in wildlife species. Many of these areas are trans-boundary natural resource management sites.

Kenya is ranked as third highest in Africa in terms of richness in mammal species of which 10 are endemic. The Mara-Serengeti ecosystem that is shared between Kenya and Tanzania is home to spectacular and massive wildebeest migration, which is the largest wild mammal migration in the world. Sudan has the second largest such migration comprising of white eared-cob (*Kobus kob leucotis*) and Tiang (*Damaliscus lunatus tiang*). Uganda has a total of 1,008 species of birds, a figure that represents more than half the bird species that can be found in the whole of Africa. The Rift Valley saline lakes in this sub-region are home to the world's renowned spectacular assemblages of lesser flamingos, often occurring flocks of up to millions.

**Table 2: Protected areas and biodiversity distribution in the IGAD countries**

Country	Protected areas			Number of species			
	Number	Area (000 ha)	Proportion of total land (%)	Mammals	Birds	Fish	Flowering plants
Djibouti	1	10	0.5	61	58	166	826
Eritrea	3	501	4.1	112	138	102	
Ethiopia	40	18,620	16.4	277	262	13	6,603
Kenya	336	7,194	12.3	359	334	314	6,506
Somalia	14	191	0.3	171	179	331	3,028
Sudan	27	12,299	4.9	267	280	130	3,137
Uganda	1,085	6,427	26.4	345	243	49	4,900
<b>Total</b>	<b>1506</b>	<b>32,943</b>					

Source: World Resource Institute

### Opportunities provided by biodiversity resources to IGAD

The natural resources in IGAD region are diverse and rich and could, if well managed and utilized, could contribute to the wellbeing, economic development and prosperity of the dependent communities and beyond. The rich fauna and flora are sources of food, medicines, biomass energy and ecotourism. Ecotourism is ranked among the top foreign exchange earners for some countries in the region and a major source of employment. The sector contributes 19% of the GDP in Tanzania (ranking second only to industry and trade), 9.2% of GDP in Uganda and 8.8% in Kenya. Several MS enjoy the global fame of being sanctuaries for some of the most unique mammals, birds and vegetation species and are geographically positioned in the centre international air travel.

### Constraints to wildlife conservation

The rich biodiversity of IGAD MS is under threat of extinction due to several factors including: accelerated habitat degradation, human and agricultural encroachment into wildlife habitats with resultant fragmentation, overuse and illegal exploitation of wildlife resources, occurrence of frequent prolonged droughts and emergence of alien invasive species, among others. Furthermore, many MS lack the legislative and policy environments and the institutions needed to protect and sustainably exploit these resources. Heavy encroachments of cropping and human settlements lead to dramatic modification of the landscapes. Several wildlife species have become extinct or in danger of extinction.

Policies that protect this biodiversity (e.g. regulation of hunting, improved health of the wildlife population) are diverse but exist in most of the MS. However, there is a general separation between laws and policies governing biodiversity conservation, and policies that promote food security through agriculture and natural resource-based productive activities. This policy failure is further combined with poor subsector integration between the various departments involved in natural resource management (public health, trade, etc.) curtails progress in activities prompting sustainability and food security, and creates confusion and unproductive competition between and within the sectoral institutions.

Most of the wildlife populations are found outside the protected areas, which puts the burden of conservation on the local communities. However, the communities rarely understand the benefits from conservation or participate in wildlife management practices.

### Management of wildlife

Biodiversity conservation and wildlife management are priorities to the MS of IGAD. Over 10% of the land mass in the IGAD region are protected and reserved areas such as national parks, forests, game and marine reserves, community and privately owned conservancies and sanctuaries. A significant amount of these protected areas occur across the national borders. However, the level of cooperation between the MS in the managing trans-boundary natural resources is still weak. Most MS have established legislative, policy and institutional frameworks for biodiversity management and are committed to ratify key global conventions such as the Conventions on Biodiversity, Climate change, Desertification, Endangered Species, Wetlands and Law of the sea. In response, national strategies and action plans for biodiversity conservation and wildlife management have been developed by most of the MS.

The IGAD Secretariat addresses wildlife under the Agriculture and Environment Division. The Division has formulated an Environment and Natural Resources Strategy that provides a framework for management of the environment and natural

resources including ecosystems and biodiversity. The objectives of the strategy include improving the governance framework, developing the requisite information, enhancing the capacity of Member States and building research and development capabilities for improved environment and natural resource management. The strategy, however, does not address trans-boundary animal diseases in wildlife as a specific issue.

## **2.2.2 Role of wildlife in the epidemiology of AHI, TADs and other zoonoses**

### **The role of wildlife in the epidemiology of AHI**

Although wild birds are the global reservoir of the gene pool of AI viruses, their role in the epidemiology of HPAI remains unclear. Various wild bird species, especially water birds, are infected with many varieties of AI strains that usually cause little or no disease in wild or domestic birds. Wild ducks (family Anatidae), in particular, maintain many such strains of the AI virus known as low pathogenicity (LP) strains because of their inability to cause serious disease. When a LP strain of AI virus infects poultry, any one of the following three possible outcomes can occur. Firstly, the AI strain may die out in the poultry. Secondly it may persist in poultry populations as a LP strain by transmission among the poultry. Thirdly, it may undergo genetic changes that sometimes result into (HPAI strains that could cause serious poultry disease. HPAI strains develop within poultry through a gradual process that requires several months of cumulative genetic change. Such strains can also infect wild birds if they are exposed to HPAI-infected poultry environments.

The outbreak of HPAI strain caused huge losses in poultry and widespread mortalities in a range of water bird species. The disease has killed, people, tigers in a zoo and experimentally infected cats. Virology studies indicate that the H5N1 HPAI virus was developed in poultry through genetic change in a LP virus strain. Infected poultry and wild birds were often found in the same general locations. So far the agent responsible for the spread of the virus from Asia to Europe and Africa remains unknown, but could be through movement of poultry or infected materials (human agent), movement of wild birds or some combination of both. It also is not known which wild bird's species are capable of carrying the virus over large or small distances. Based on the available evidence at least some H5N1 HPAI strains could have been carried over long distances by wild birds. Therefore, precise knowledge of wild bird movements (sedentary, bridge species between poultry establishments and wetlands, seasonal migratory, and nomadic moving over large areas) has become a key concern in assessing the risk of this HPAI virus strain to poultry. Bird migration distances vary from one hundred kilometres or less to a nearly pole-to-pole migration between northern and southern hemispheres. Overall, it is strongly believed that there could be transmission of the HAI strains between wild birds and poultry. Therefore, the presence of infection in either group represents a risk of disease in the other. That risk will depend on the opportunities that may exist for the interaction between infected wild birds and poultry, whether through direct contact or indirectly such as virus transmission through contamination.

### **The role of wildlife in the epidemiology of other TADS and zoonoses**

The IGAD region is dominated by ecosystems where livestock and wildlife share grazing and drinking resources. This interaction has many implications including sharing of several diseases which impact directly and indirectly on humans (Table 3).

Table 3: Examples of diseases that are transmitted at the wildlife livestock interface affecting humans

Infectious disease	Affects wildlife	Affects domestic animals	Affects humans directly	Affects human livelihoods indirectly
Rabies	X	X	X	X
Anthrax	X	X	X	X
Brucellosis	X	X	X	X
Ebola	X		X	X
Tuberculosis	X	X	X	X
Scabies	X	X	X	
Toxoplasmosis	X	X	X	
Leptospirosis	X	X	X	
Leishmania	X	X	X	
Distemper	X	X		
Food and mouth	X	X		X
Trypanosomiasis	X	X	X	X
PPR	X	X		X
Rinderpest	X	X		X
HPAI	X	X	X	X

Wild animals are natural reservoirs for several diseases that affect the livestock economy and the livelihoods of rural communities. These diseases include foot and mouth disease (FMD), malignant catarrh fever (MCF); African swine fever (ASF) and African horse sickness (AHS). The transmission of Rinderpest to domestic animals in the region is a typical example of the interaction of wildlife and domestic animals, and underscores the extent of the effort and resources needed for the containment and eradication of other key diseases such as Peste de petit ruminant (PPR), Rift Valley Fever (RVF) and FMD. In this respect, the key role played by wildlife sero-surveillance in the rinderpest eradication process should be considered as an approach which needs to be sustained in other control attempts.

Although the role of wildlife in the epidemiology of many diseases is not clear, wild animals are known to be susceptible to many diseases that affect domestic animals and may serve as epidemic, multiplier, endemic or maintenance hosts (Table 4) as briefly discussed below:

- Often when there are contacts between livestock and wildlife, susceptible wild animals become infected following outbreaks of disease among the domestic animals. The disease dies off naturally in the wildlife population once it has been controlled in the domestic species. In such cases wild animals act as **epidemic hosts** of the disease agent. Wildlife infected this way may or may not manifest overt disease. In cases where they develop overt disease it may be accompanied with a wide range of mortality depending on the type of disease and species of animal involved. In cases where no overt disease develops the only evidence of infection is usually the presence of disease specific antibodies following the outbreak;
- On the other hand, wild animals can serve as **multiplier** or epidemic hosts for some diseases such as Rinderpest and anthrax. The pathogens replicate efficiently in the hosts with subsequent enhanced transmission to other species either by contact or through environmental contamination;
- Also wild animals can serve as **endemic hosts** of certain diseases causing infection at any time of the year. Examples are *theileriosis*, *trypanosomiasis*, *cowdriosis* and FMD among others. These types of diseases usually cause no mortality in the wildlife species although they may cause varying degrees of mortality among the domestic species;
- Also the wild animals serve as maintenance hosts for some diseases such as FMD and bovine tuberculosis (BTB). The diseases are maintained in parts of the tissues of the host animal and could remain dormant for many years and be released from time to time to infect susceptible communicable animals. In such cases, eradicating the disease is a major challenge.

**Table 4: The role of wildlife in the epidemiology of common diseases in Africa**

Disease	Notable species	Epidemiological role	Mortality
FMD	Buffalo, impala, wildebeest,	Epidemic host	Low
Anthrax	Kudu, impala	Multiplier epidemic hosts	High
Bovine TB	Buffalo, kudu	Epidemic hosts	Moderate
PPR	Gazelle, oryx, ibix	Epidemic host	Moderate
Rinderpest	Eland, kudu, bushbuck, girrafe,	Epidemic host	High
Brucellosis	Buffalo	Epidemic host	Low
Ticks and TBDs	Eland, buffalo, impala	Multiplier endemic host	Low
Internal parasites	Grazing ungulates	Multiplier endemic host	Low
Canine distemper	Lions, wild dogs	Epidemic host	High
Rabies	wild dogs, kudu,	Epidemic host	High mortality
	Yellow mongoose, bat-eared	Endemic hosts	Low
Ebola	Monkey, gorillas, chimps	Epidemic host	High?
Heartwater	Eland, springbuck, lechwe,	Endemic hosts	None
Trypanosomiasis	Bushbuck	Multiplier endemic host	None
LPAI	Water birds	Maintenance host	None
<b>Important species specific associations</b>			
<b>Buffalo</b>	BTB	Maintenance host	Moderate
	FMD	Maintenance host	Negligible
	Rinderpest	Multiplier epidemic host	High
	Corridor disease	Endemic host	None
<b>Bushbuck</b>	Bovine petechial fever	Endemic host	None
<b>Warthog</b>	ASF	Endemic host	None
<b>Wildebeeste</b>	MCF	Endemic host	None

### 2.2.3 Wildlife health services

Ethiopia, Sudan, Kenya and Uganda have wildlife veterinary units within the ministries responsible for wildlife. In Ethiopia the unit is within the Ethiopia Wildlife Conservation Authority. In Kenya it is within the Kenya Wildlife Service and in Uganda within the Uganda Wildlife Authority. In Sudan it is in the Directorate of Animal Health and Epizootic Disease Control within the Ministry of Animal Resources and Fisheries. Sudan has a unique situation in that the country's administration is currently divided into northern and southern. Institutions in the southern are still poorly developed in general and there is no wildlife veterinary unit. Most of these units are sharply constrained in terms of human resources and equipment (Table 5). Kenya has the most advanced wildlife veterinary unit with a staff of 12 veterinarians, 3 technicians and 35 capture rangers, as well as strong wildlife capture capabilities using both individual and mass capture systems. The unit has developed over the last two decades from a centralized mobile unit with one expatriate veterinarian in 1990 to a versatile department with three decentralized sub-units. It has been instrumental in conducting wildlife disease surveillance in the region, especially during the rinderpest eradication campaigns, and resourceful in training of wildlife health personnel in the region and other parts of Africa. The unit has a dedicated wildlife veterinary laboratory, which at the moment is under-resourced but could become a regional wildlife diagnostics centre if further developed.

The wildlife veterinary units in Sudan, Ethiopia and Uganda are having basic wildlife capture equipment and very lean staff ranging from one veterinarian to three veterinarians. Considering the expansive areas that these units have to serve, the abundance of wildlife in the respective areas, the continually intensifying wildlife-livestock interface and the concomitant emerging wildlife veterinary and management challenges, these units are grossly under-equipped.

A common constraint of the wildlife veterinary units within the region is the under-resourcing of their disease surveillance and wildlife health monitoring functions. These activities mostly rely on donor funded projects. This is partly because the primary mandates of the organizations in which the units operate is wildlife management and not animal health. The departments mandated nationally to deal with animal health on the other hand lack strong linkages with those responsible for wildlife. This is the case despite the statutory reporting relationships between wildlife veterinarians and national Chief

Veterinary Officers (CVOs) and occasional inter-departmental meetings prompted by donor funded joint projects. Wildlife health matters therefore tend to be addressed on ad hoc basis depending on the extent to which the animal species affected are considered sensitive by management. Long-term investment to improve wildlife disease surveillance, monitoring and research capacities of the countries in the region is still grossly inadequate. Management related wildlife veterinary interventions such as translocations and ad hoc clinical interventions form the bulk of the activities of the units with limited systematic health monitoring and research. Investigations of wildlife disease outbreaks are often inconclusive partly due lack of a strong diagnostics function within the wildlife veterinary units but also due to weak linkages to national and international reference laboratories and often lack of resources for pursuing diagnosis to the level positive aetiological identification.

The emergence of Highly Pathogenic Avian Influenza (H5N1) involving domestic birds, wild birds and humans has heightened recognition of the need for stronger collaboration between livestock, wildlife and human health authorities at national level in addressing TADs and zoonoses. This has led to the formation of joint avian influenza taskforces in the region most of which have representation from the national wildlife departments. Veterinary departments have also identified focal persons within the wildlife departments to coordinate disease surveillance matters. In addition, joint projects especially the rinderpest eradication projects under PACE and SERECU have made significant effort to foster intersectoral collaboration through joint planning and information exchange fora. These efforts for inter-sectoral collaboration at national level need to be consolidation and scaled up at regional level.

On the overall, capacities of most IGAD MS for wildlife health services are weak or non-existent. A few countries, however, have relatively stronger units and there is potential for capacity sharing within the region. Private wildlife veterinary practice is not well developed in the region.

**Table 5: Capacities of IGAD MS wildlife veterinary services**

Country	Veterinary unit		Human resources		Equipment		
	Existence	Department	Number of Veterinarians	N. of technicians and support staff	Dart guns	Capture systems	Dedicated laboratory
Djibouti	-	NA	-	-	-	-	-
Eritrea	-	NA	-	-	-	-	-
Ethiopia	+	EWCA	1	-	+	capture nets for ungulates	-
Kenya	+	KWS	12	3 technicians and 35 rangers	+	Capture nets, mass capture system, cages and traps	+
Somalia	-	NA	-	-	-	-	-
Sudan	+?	MARF/DAH EC	1	1 technician	+	-	-
Uganda	+	UWA	3	-	+	-	-

**Key** (+=Present, - = Absent, +? probable) NA= Not applicable, EWCA=Ethiopia Wildlife Conservation Authority, KWS=Kenya Wildlife Service, UWA= Uganda Wildlife Authority, MARF/DAHEC=Ministry of Animal Resources and Fishing, Directorate of Animal Health and Epizootic Disease Control)

## 2.3 Status and impact of AHI, TADs and other Zoonoses

### 2.3.1 Status and impact of AHI outbreaks

Two IGAD countries (Djibouti and Sudan) experienced outbreaks of HPAI in 2006. The Sudan outbreak was notified to the OIE on the 2 May 2006 followed by Djibouti on 11 May 2006. The disease has since been eliminated in both countries. The disease was confirmed in Sudan in April 2006 in Central Sudan (Gezira State, Khartoum State, and River Nile State) and in Juba town in Central Equatoria State of Southern Sudan.

During the outbreak, 220 poultry farms were depopulated and around 1.7 million birds (22,000 parent stock, 75,000 day old chicks, 1.3 million layers, and 300,000 broilers) were destroyed to contain the infection, complemented with the vaccination of 3 million birds. Direct losses were estimated at US\$ 8.5 million (US\$ 8.3 million for birds, US\$ 50,000 for table eggs, US\$ 90,000 for fertilized eggs, and US\$ 66,000 for feeds) in Khartoum State alone<sup>4</sup>.

The last outbreak of HPAI was recorded on the 4th of September 2006 and the country officially notified the OIE that it has regained its HPAI free status on the 25th of November 2007.

<sup>4</sup> INAP Sudan

The Government of Sudan decided to apply for the Joint Rapid Assessment of Avian and Human Influenza for the INAP in order to strengthen the national capacity to eradicate AI and prevent a potential human pandemic.

In order to better coordinate efforts, the National Unity's Influenza Higher Committee prepared the Integrated National Avian Influenza Emergency Preparedness and Response Plan (NAIEPRP) commenced in 2007 with the purpose of integrating the human and animal health components into one plan. That entailed the integration and coordination between the Government of National Unity (GNU) and the Government of Southern Sudan (GoSS). The main objectives of the plan were to ensure prevention and preparedness; early warning, response and recovery (intervention and rehabilitation). The inter-sectoral plan which is supported by the UN agencies and the Civil Society organisations aimed to achieve the following:

- Strengthened planning capacity of the National and Sub-National authorities for the implementation of the plan.
- Strengthened competency of the human and animal health sectors for active and passive surveillance of the avian and human influenza to ensure prevention and early detection.
- Heightened response capacity of the human and animal health sectors in containing outbreaks and minimizing transmission to humans.
- Heightened response capacity of the human and sector to the management of suspected human cases and prevent further transmission in the event of infection in humans.
- Ensure health promotion and communication to increase community awareness on preventive and precautionary measures, accurate knowledge, positive attitudes and sufficiency of skills.
- Establishment of an effective Monitoring and Evaluation system at all levels

Although the disease has been eliminated, the Federal Ministry of Health, the World Health Organization (WHO), the United Nations Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (OIE) along with other partners are working closely to strengthen national preparedness for human avian influenza, reduce opportunities from animal to human transmission and improve early warning to trigger appropriate public health containment measures for the avian human influenza. WHO continues to support the Federal Ministry of Health and the Ministry of Health of GoSS with technical assistance for active surveillance and strengthening of health services capacity to detect, prepare for, and respond to any threats from avian influenza.

The outbreak in Djibouti is not fully documented but it appears the disease did not spread beyond its outbreak area, and was quickly controlled. Unlike in ECOWAS where the HPAI outbreak elicited a robust and concerted response from the region, IGAD did not embark on any regional strategy to assist its affected Member States. It is however acknowledged that international organizations played a crucial role in assisting affected countries in managing the outbreaks and some of them still continue to guide and mentor the two countries.

### **2.3.2 Status and impact of TADs outbreaks**

Collectively IGAD MS produce the largest number of livestock in Africa; mostly from Ethiopia and Sudan. Livestock are primarily produced from dry-lands marginal areas by poor farmers. The region is also the main exporter of live animals within and outside Africa, but needs to maintain a disease free certificate to realise this comparative advantage.

IGAD region has one of the highest animal disease burdens in Africa contributing to high economic losses and acting as a trade barrier. The reason for such high animal disease burden could be inadequate funding for disease control programmes coupled with extensive animal management practices and movements in search of pastures and access to markets. The diseases that have the highest economic and food security impact in the region include FMD, CBPP, PPR, ND and RVF but no attempt has been made in IGAD to prioritise and manage animal diseases similar to what has been done in the EAC where eleven diseases are listed as a priority with plans developed to manage them at regional level. The situation regarding some of these diseases is summarised in Annex 2. (Table 15, 16, 17 and 18),

#### **Contagious Bovine Pleuropneumonia**

CBPP is endemic in IGAD and the region is the worst affected by the disease in Africa. The worst affected countries are Ethiopia and Uganda accounting to 82.4% of all CBPP cases reported in Africa in 2008 and 86.7% of all CBPP deaths in the same year. Control measures applied include treatment, vaccination and slaughter and destruction of clinical cases and in-contact animals. These control measures do not seem to be yielding any positive results as outbreaks continue to occur widely in the region.

## Foot and Mouth Disease

FMD is prevalent in IGAD Member States with its epi-centre in Ethiopia. The disease is a serious barrier to livestock trade and food security considering that most livestock in the region are owned by dry-lands rural farmers in marginal areas not suitable for crop farming and these people primarily derive their livelihoods from livestock keeping. FMD in IGAD presents itself as a maintained endemicity. Control measures employed differ from one country to another and involve vaccination and slaughter and destruction of infected and in-contact animals but these measures do not seem to be effective against the disease. Coordination of control programmes seems to be weak both at national and regional level with individual farmers left to raise their own money for purchase of vaccines in most countries of IGAD.

## Newcastle disease

Like most of the regions in Africa, Newcastle is endemic in IGAD and periodic epidemics occur in different countries. More than 90% of all chicken deaths in rural poultry establishments are related to Newcastle disease and these confirms the importance of this disease as a serious impediment to food security in terms of protein contribution to the poorer communities who are dependent on poultry for this valuable nutritional requirement. The technology in use for poultry vaccination may not be appropriate with the type of poultry farming system practiced by many rural households, especially the cold chain requirement. From 2006-2008, the disease was reported in all IGAD Member States, except, Djibouti which did not submit any report. Ethiopia and Uganda seem to be the most affected countries by Newcastle in IGAD.

## Impacts of TADs

Impacts of TADs range from animal deaths to loss of markets, and some diseases have public health concerns. The recent outbreaks of Rift Valley Fever in Kenya and Tanzania resulted in domestic and international ban on livestock trade both in Kenya and the Middle East with devastating effect on the region.

### Kenya Domestic Market Ban 2007-2008

The outbreak of RVF resulted in the closing of the Garissa Market for seven weeks starting from December 2007 to February 2008<sup>5</sup>. Weekly losses were estimated at between US\$ 375,000 - US\$ 500,000 based on average weekly supply of 5000 cattle and about 500 camels. The supply of milk from the rural areas was reduced from 4000 litres to zero and that affected pastoral women severely. In those seven weeks ban, Garissa became literally a ghost town. The ban affected all groups of people-pastoralists, traders, transport operators and those who made their living out of the Garissa market. The above actions are indications that RVF is a disease that can seriously affect a country's export trade if detected in any neighbouring country/countries despite its absence in that particular country as long as livestock movements between neighbours take place.

RVF outbreak in a country can also cause serious socio-economic impacts. For example a study done by Kenya on the socio-economic impacts of RVF indicated that each household lost on average Kenya Shillings Thirty Five Thousand (500 USD) due to low productivity and costs related to disease control during the last RVF outbreaks<sup>6</sup>.

### International Livestock Trade Ban in IGAD

The 2007 RVF outbreaks in Kenya and later in Tanzania resulted in the imposition of livestock and meat export ban from Ethiopia by the United Arab Emirates for about 9 months. Also, a drop of livestock price by about 30% was reported in the Somali region of Ethiopia as a result of the outbreak in Kenya. Important bans were also extended to other IGAD Member States with export to the Middle East such as Sudan and Somalia.

### 2.3.3 Status and impact of other Zoonoses outbreaks

#### Rabies

Rabies is presumed to occur in all IGAD MS and from 2006-2008 it was reported in five out of six IGAD MS. The disease is endemic in the region and periodic outbreaks occur in all countries. The most animal species affected is the canine and control measure applied is vaccination of dogs. Outbreaks have been increasing since 2006, but the situation in humans is

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<sup>5</sup> Aklilu, Y., Catley, A: *Analysis of Benefits by Wealth Group and Policy Implications*, IGAD LPI Working Paper No. 01-10 (Jan 2010), Feinstein International Center, Tufts University.

<sup>6</sup> Pan African Animal Health Yearbook 2007

not included in reports. There is therefore a need for the region to evaluate its rabies control strategies and include a strong public awareness (communication) aspect to highlight the importance of this disease as a public health concern.

## 2.4 Overview of the Performance of Veterinary Services (PVS) in the MS

The following analysis of the Performance of the Veterinary Services in the IGAD MS is based on the existing OIE PVS Reports of the MS which agreed to share their report with OIE Partners. As the OIE PVS Tool has evolved during the last years according to the updates of the OIE Terrestrial Animal Health Code, some differences in the critical competences evaluated in the different countries are reflected in this analysis. The analysis is structured following the four fundamental components of OIE PVS Tool. When mentioning a Level, it refers to the level of advancement for the critical competencies of the OIE PVS Tool, which is qualitative and consider five possible levels of advancement, among which a higher level of advancement assumes that the services are complying with the criteria for the preceding one.

For 5 of the 7 IGAD countries, evaluation missions were conducted between 2007 and 2009 by OIE experts:

- Djibouti – OIE PVS Evaluation performed on 2007 - Requested to keep the report confidential
- Eritrea – OIE PVS Evaluation performed on 2009 - Requested to keep the report confidential
- Kenya – OIE PVS Evaluation performed on 2007 - Report available for OIE partners and donors
- Sudan – OIE PVS Evaluation performed on 2009 - Report available for OIE partners and donors
- Uganda – OIE PVS Evaluation performed on 2007 - Report available for OIE partners and donors

For Somalia and Ethiopia, the OIE PVS Evaluation was requested but not yet conducted.

Accordingly, this overview takes into account only the 3 OIE PVS assessments already done in Kenya, Sudan and Uganda and is presented according to the different chapter (fundamental component) of the OIE-PVS Tool. The assessment of Kenya and Uganda was made with the 2nd Edition of the OIE-PVS Tool in 2007 while the assessment of Sudan was made with the 4th Edition in 2009. Therefore some critical competencies could not be assessed for the 2 first mentioned countries, because not integrated in the Tool at the time of the assessment.

### 2.4.1 Human, physical and financial resources

Staff shortage is observed everywhere. In Kenya and Uganda, the non-replacement of retired staff is the main source of job vacancies within the public services. This situation is particularly true at field level, in provinces and districts. Sudan lacks mainly veterinary para-professionals since last recruitments were made in 1996. In these 3 countries, staff remuneration in Veterinary Services is also generally not attractive compare to others Ministries or to the private sector. At field level, in Sudan the delivery of primary animal health care, disease surveillance and reporting are made by veterinary para-professionals or by community animal health workers (CAHW), with basic equipment. The staff members are often undergraduates without a clear supervision by the veterinary authority. Their positions are supported by donor funding; for this reason they are not formalised and sustainable. This directly weakens the chain of command and coordination of activities from the central level to the field level. All the more in this country VS competencies are shared by different ministries. This is not the case in Kenya and Uganda, where private veterinarians are often the first to report disease incidence to the district veterinary officer. But this field network of private veterinarians is mainly located in areas with high livestock density and other parts of the country are often deprived of appropriate veterinary services. In Sudan, private veterinarians are often involved in the sale of veterinary products and rarely in clinical activities. This situation doesn't comply with the OIE Standards, which stipulate in the Article 3.2.5 of the OIE Terrestrial Animal Health Code that "disease monitoring is being conducted by a sufficient number of qualified, experienced field veterinarians who are directly involved in farm visits; there should not be an over-reliance on veterinary para-professionals for this task".

Initial training for both veterinarians (level 2) and veterinary para-professionals (level 3) are of uniform standards in Kenya and Uganda that allow them to conduct standard and basic activities. Veterinary specialisation (level 4) is only observed in Sudan, but assessors mentioned that veterinary universities are not externally accredited. In Kenya and Sudan, part of the staff can access to high level university degrees, recognized by academic institutions. But only Kenya appears to have an effective continuing education policy based on national and foreign accredited universities and specialized institutions (level 4). Sudan and Uganda lack of relevant Continuing Professional Development programmes (level 2 and 1). In all the 3 MS, punctual and irregular training programmes are however available on an opportunistic way, funded by donors, regional or international organisations, but without taking into consideration particular needs of the VS. Therefore, the competencies of veterinarians and veterinary para-professionals require important improvement in this region. Even if the situation is better in Kenya, assessors observed globally a lack of relevant continuing education, specialisation and training for all the staff of the VS. Only Kenya and Sudan have permanent and regular contacts, meetings and communications with other institutions (respectively level 4 and level 3). In Uganda there are only informal or irregular coordination mechanisms for some activities, with an unclear chain of command (level 2).

Concerning the funding of VS, the situation is quite different country by country in this region. In Uganda, funding for the VS is neither stable nor clearly defined but depends on resources allocated irregularly (level 1). In Kenya, this funding is inadequate for the VS required base operations, even if it is clearly defined and regular (level 2). In Sudan, however, funding for the VS is clearly defined and regular, and adequate for their base operations. Furthermore funding for new or expanded operations is on a case-by-case basis (level 4). Contingency funding and the capacity to invest and develop are in the same line in Kenya and Uganda (level 1 or 2). In Sudan (level 3), contingency and compensatory funding arrangements with limited resources have been established. For that reason, external funding, through development projects funded by international or regional donors, is an important way to conduct activities and tasks allotted to the veterinary services. In Sudan, some services provided by the VS, such as delivery of drugs or meat inspection, are also sources of income for the VS. But vaccination programmes, which represent the main part of VS budget, are provided free of charge. Infrastructures should be improved in Uganda. Fully equipped mobile clinics have been acquired in Sudan.

**Table 6: Human, physical and financial resources**

Critical competencies		KE	SD	UG
I.2.a	Competencies of veterinary professionals	2	4	2
I.2.b	Competencies of veterinary paraprofessionals	3	3	2
I.3	Continuing education	4	2	1
I.4	Technical independence	5	4	3
I.5	Stability of structures and sustainability of policies	3	4	2
I.6	Coordination capability of the sectors and institutions of the VS	4	3	2
I.7	Physical resources	-	3	-
I.8	Funding	2	4	1
I.9	Contingency funding	2	3	1
I.10	Capability to invest and develop	2	3	1

### 2.4.2 Technical authority and capability

**Laboratories-diagnosis and quality assurance:** The level of veterinary laboratories within these 3 countries is very different. In Sudan and Kenya the VS have access to and use a laboratory to obtain a correct diagnosis for the majority of diseases present in the country or known to be present in the region. In Kenya, (level 4) laboratories are mandated to confirm diagnosis of animal diseases, disease search and surveillance, as well as to monitor the effectiveness of vaccination campaigns and quality regulation of veterinary inputs and outputs, as well as certification of imports and exports. In Sudan (level 3) the Central Veterinary Research Laboratory has a wide range of modern diagnostic and vaccine production equipment, and laboratory facilities are maintained in good condition. Quality assurance programmes are also implemented in this country (level 3), but have to be strengthened, particularly in the domains of quality controls, certification, accreditation and outside evaluation processes.

In Uganda, laboratories are not fit to ensure that the relevant services the VS are availed (level 2). The laboratory diagnostic is only reliable for a limited number of the major animal diseases and zoonoses, either domestically or by sending samples to a foreign laboratory (which requires extra financial resources).

In every country, reporting system between the field and the central VS are generally regular and up to date. However, none of the country is able to efficiently exploit such kind of information, due to lack of qualified resources and no specific competencies, such as dedicated staff, on risk analysis.

The three MS do not have the capability to systematically assess risks and only Sudan bases some risk management decisions on scientific risk assessment (level 2). Accordingly, VS have no or limited capability to identify in advance, and take appropriate action in response to likely emerging issues.

**Border security:** Due to the lack of sufficient feed resources in this region, nomadism and transhumance are particularly developed. This leads to the presence of significant unofficial and uncontrolled livestock movement of cattle, small ruminants and camel all over the region, hampering clear and relevant programme of border protection. A regional approach in this domain is recommended. Passive and active **epidemiology-surveillance** programmes are implemented by the 3 MS. Even if VS demonstrated their technical capacity to carry out active and/or passive surveillance programmes, as witnessed by the fact that they are all officially recognized by the OIE as free from Rinderpest, they often suffer from inadequate resources and funding. This is particularly true in Uganda, where resources are insufficient to ensure regular field visit to strategic sites such as areas of livestock concentration, water points, markets and slaughterhouses, corridors for transhumance and border posts (level 2). In Kenya and Sudan the situation is more favourable (level 4 and 3) with active and passive surveillance programme on-going. In these countries, field networks are established for the collection of samples and submission for laboratory diagnosis of suspect cases. In Kenya also, stakeholders are aware of and comply with their obligation to report the suspicion and occurrence of notifiable diseases to the VS. Only in Sudan (level 4) VS have the necessary legal and financial support to respond appropriately to sanitary emergency. In Kenya and Uganda, even if they have a field network and established procedures and plans to determine whether or not a sanitary emergency exists, the legal and financial support is lacking. Mass vaccination campaigns, generally free of charge, are the main strategies implemented in these 3 MS to control or prevent diseases. Some efficient eradication programmes can be underlined, such as the eradication of HPAI in Sudan (2006), the containment of RVF in Kenya (2007). All the 3 assessed MS have at best a limited capability to exercise administrative control (including registration) over the usage, including import and production, of veterinary medicines and veterinary biological products (level 2) or must accept that the veterinary services have no control over the regulation of the usage of veterinary medicines and veterinary biological products (Kenya, level 1).

Unofficial or illegal drugs are known to circulate within the region, particularly in remote areas with limited access to VS. This uncontrolled movement of veterinary medicinal products poses a major threat to animal health, public health and the environment. In the entire region, there are also reportedly malpractices occurring with counterfeit veterinary medicinal products and the retailing of substandard products at a lower price than recognised brands. It is therefore essential to establish effective legislation and its efficient enforcement for the registration, distribution and quality control of veterinary medicinal products in each country. Regional cooperation in the registration, quality control and usage of veterinary medicinal products overcomes the inability of some individual countries to effectively institute and maintain such mechanisms because of the high costs for countries working alone. So, a regional approach is strongly advocated in this area, similar to the one initiated in the ECOWAS region. Efforts shall also be made in developing residue testing programmes, only evaluated at present time in Sudan (level 3). In terms of implementation, management and coordination of **veterinary public health measures**, including programmes for the prevention of specific food-borne zoonoses and general food safety programmes, only Sudan was assessed. In this country those programmes are generally undertaken in conformity with international standards for export purpose and also for products that are distributed throughout the national market (level 3), but only for the meat industry. However, the work of VS (ante and post mortem inspection) is realized, in this country, under relatively poor infrastructure and limited legislative measures.

All assessment mentioned that collaboration programmes with Ministries of Health were particularly reinforced during the HPAI crisis, but without sustainable funding those programmes could not be maintained or fully implemented.

**Table 7: Technical authority and capability**

Critical competencies		KE	SD	UG
II.1.	Laboratory diagnosis	4	3	2
II.2	Quality assurance of laboratories	-	3	-
II.3	Risk analysis	1	2	1
II.4	Quarantine and border security	1	4	1
II.5	Epidemiology surveillance	4	3/4	2
II.6	Early detection and emergency response	2	4	2
II.7	Disease prevention, control and eradication	-	3	-
II.8	Veterinary public health and food safety	-	3	-
II.9	Veterinary medicines and vet. biologicals	1	2	2
II.10	Residue testing	-	3	2
II.11	Emerging issues	2	3	1
II.12	Technical innovation	4	3	1

### 2.4.3 Interaction with stakeholders

The National Veterinary Services (NVS) of IGAD MS are aware of the importance of informing stakeholders of the animal health and zoonoses situation, disease control programmes and the risks associated with animal raising and consumption. They all agree that the success of disease detection and control is dependent on the participation and willingness of stakeholders, which requires their understanding of the situation and commitment to programmes. None of the country has within its VS a unit or service specifically dedicated to communication activities and the relevant budget to implement such activities. However, a communication unit exists in Sudan within the extension department at the Ministry headquarters with specialized sub-units. Regular programmes produced by this extension department broadcast also information concerning the VS activities and disease alerts (level 3). In this country there are also specific veterinary publications. In Kenya, the VS maintain an official communication outlet, which users can consult regarding standards, regulations and notifications (level 3). Communication programmes are also generally dependant of external funds and conducted under externally supported projects. But at the end of the project, activities stop. This is particularly true for Uganda (level 1). The recent HPAI crisis was a great opportunity for VS to strengthen their communication activities and to underline their role through large mass media programmes. Every country benefitted from this media exposure. Nevertheless, access to relevant and updated information is extremely difficult in remote areas where pastoralists and farmers have a critical need for communication and extension services. At the present time, none country has developed a website reserved for VS communication.

**Consultation with stakeholders** is very weak in the MS of the region, except for Kenya (level 3) where formal communication mechanisms exist and are well developed, involving public and private veterinarians, researchers and academics, and farmers. Consultations initiatives started in the two other countries, initiated through the implementation of development projects. However, annual vaccination campaigns in every country are implemented in collaboration with farmers. This seems to be a good start to develop other joint programmes.

Concerning the **official representation**, all the countries are members of the OIE and of other international organisations such as WHO and FAO. Every country has the capability to regularly and actively participate in the majority of relevant meetings organised by those international or regional organisations (level 3). Every country also benefit from external sponsor or donor to participate in different meetings organized at regional or international level.

In the area of the exercise of veterinary medicine and surgery, in Kenya, Sudan and Uganda, the veterinary profession is well organised with active veterinary statutory bodies (level 3 or 4), regulating the veterinary profession and reviewing the quality of the veterinary education, and active Veterinary Associations.

However **accreditation and delegation** to the private sector to carry out official tasks are not formally implemented in these 3 MS, even if some countries have the capability and the authority to do so (Kenya – Sudan) or have the relevant private veterinary network to do so (Kenya). In Sudan, the law restrict some task, such as vaccination, to the public service.

**Table 8: Interaction with stakeholders**

Critical competencies		KE	SD	UG
III.1	Communication	3	3	1
III.2	Consultation with stakeholders	3	2	1
III.3	Official representation	3	3	3
III.4	Accreditation /Authorization/Delegation	3	2	2
III.5	Veterinary Statutory Body	4	3	4
III.6	Participation of producers and other stakeholders in joint programmes	2	2	1

#### 2.4.4 Access to markets

**Veterinary legislations and regulations:** A major weakness of the VS in the MS of the region is lack of or poor compliance with OIE standards, SPS and others. For example, the **veterinary legislative framework in Uganda** is outdated and is not adapted to the work of VS. In spite of having the authority and capability to participate in the preparation and implementation of the national legislation and regulations, the VS in Kenya and Sudan lack competent staff and regular source of information needed for effective compliance. Without the backup of effective veterinary legislation, the VS cannot carry out efficiently the following key functions: epidemio-surveillance, early detection, reporting, rapid response, prevention and control of outbreaks of animal diseases, including zoonoses, animal production food safety, animal welfare and the certification of animals and animal products for export. Furthermore, the VS need to keep up, through modern legislation, with emerging concerns such as trade globalisation, climate change and the enhanced cross border spreading rate of the major animal and zoonotic diseases.

**Stakeholders' compliance:** In Sudan weaknesses in applying veterinary regulations have been reported.

**Harmonisation of regulations and sanitary measures:** In the same line, and except Sudan, VS in the MS of the region do not have the financial resources or the full authority and capability to be active in the harmonisation of regulations and sanitary measures and are not able to apply the national legislation and regulations under their mandate to the relevant international standards.

**International certification:** every country has certification programmes for certain animals, animal products, services and processes under their mandate. But this certification is not always in compliance with international standards (e.g. Uganda). In the framework of the regional export market of live animals mainly to the Middle East, VS have signed some sanitary agreements. In some of them private live animal trading companies are involved.

**The authority and capability of the VS to identify animals and animal products** under their mandate and trace their history, location and distribution is generally weak in most IGAD MS. The weakness is mainly due to the high cost and poor implementation of the identification programmes, especially in areas of extensive animal movement.

**Transparency:** All countries, except Uganda, are able to notify occurrence of diseases in compliance with the procedures established by OIE, WTO and others. However there is need to strengthen the process through regular communication with the concerned stakeholders.

**Zoning and compartmentalisation** in compliance with the OIE standards are not a priority in this region. Except in Sudan, where zoning was applied during the course of the Rinderpest eradication programme, and where a disease free zone for export has been created.

**Table 9: Access to markets**

Critical competencies		KE	SD	UG
IV.1	Preparation of legislation and regulations, and implementation	3	3	2
IV.2	Stakeholder compliance with legislation and regulations	2	3	1
IV.3	International harmonization	3	5	2
IV.4	International certification	3	3	2
IV.5	Equivalence and other types of sanitary agreements	3	2	2
IV.6	Traceability	4	1	1
IV.7	Transparency	3	3	2
IV.8	Zoning	2	3	1
IV.9	Compartmentalization	2	2	-

## 2.5 The role of IGAD in strengthening veterinary service capacities

### 2.5.1 Legislative frameworks and harmonization

No specific activity is undertaken by IGAD for the harmonization of legislative frameworks. However, the FAO implemented Livestock Policy Initiative (LPI) is supporting MS in the harmonization of livestock development policies.

### 2.5.2 Coordination of MS veterinary services

Most activities related to the delivery of veterinary services in the IGAD Region remain the responsibility of individual Member States. IGAD does not have an established system at the Secretariat for the coordination of the MS veterinary related matters. However, there are some coordination activities within the framework of the IGAD Livestock Policy Initiative (LPI) project that facilitate networking on regional matters such as livestock movements and vaccinations. Mainly, LPI is being implemented by IGAD as mechanism for coordinating the regional policy formulation and harmonisation initiatives needed to facilitate trade in livestock and livestock products and inputs. At present LPI is being used by Secretariat as a temporary livestock desk office for the Region.

### 2.5.3 Regional networks

#### IGAD Epidemio-surveillance and Laboratory Networks

The FAO-ECTAD's EAC office, which was established as a response to the HPAI outbreak, also provides support to the IGAD region which has not yet developed at the Secretariat level institutional mechanism for coordinating the regional epidemio- surveillance and laboratory networks. At present the networks operate only at the national level following the same approach that was developed by the PACE Programme. However, and in spite of the absence of a regional platform for epidemio-surveillance and laboratory networks, the national epidemiology units in Ethiopia, Kenya, Uganda and Sudan, are very active in disease surveillance building on the PACE experience of mainstreaming participatory epidemiology disease search practices, including the use of community-based animal health workers into the national epidemiological surveillance programmes. On the other hand, Ethiopia has adopted the risk assessment and communication strategies it developed for HPAI outbreak, to address the RVF emergency.

The OIE Laboratory and Collaborating Centre Twinning Programme (LCCTP), has created opportunities for developing laboratory diagnostic methods, scientific and regulatory infrastructure and knowledge on the OIE Standards. The programme aims at creating Reference Laboratories and Collaborating Centres in the underrepresented geographic areas and to improve the level of the laboratory diagnostic, scientific and regulatory expertise. The benefits from twinning projects are expected to be sustainable, and to lead to the maintenance and development of expertise and scientific networks in the region.

In addition to LCCTP, the following networks developed under the LPI aim to bring people of similar interests from the IGAD MS to discuss common livestock problems: The Cooperation in Cross-border Control of Animal Diseases network (livestock movements, vaccinations), the Regional Forum for Pastoralists and Livestock Service Providers in Pastoral Areas Network, and the Regional Forum for Livestock Service Providers Network.

## **The IGAD Livestock Information Portal**

The IGAD Livestock Information Portal is designed as web-based one shop information Management System to provide IGAD MS and stakeholders in the livestock industry with comprehensive information system to strengthen evidence policy making process for the sector. It was developed by the IGAD LPI. The aim of this portal is to harness the vast amount of information in IGAD which is scattered across multiple sites, ministries and organisations. It gives IGAD MS access to planning and networking information from a variety of sources across the region and within countries. It is meant to capitalise on existing information systems by bringing them together. This system is designed to be a meta-database system to facilitate information organisation and retrieval. The web portal is designed to strengthen the National Information Nodes to meet the needs of the National Policy Hubs and Working Groups in evidence based policy development processes for the livestock sector. The information in the portal includes documents, spatial datasets, and links to key data and information sources. The information will be updated by Ministries in charge of livestock, through their information nodes recently set up and will be coordinated by the IGAD Secretariat. The establishment of the above mentioned IGAD Livestock Information Portal is a very positive development and effort to harness planning information in a one shop centre for access by all key players in the IGAD livestock sector. However, the system depends on the national Nodes of the Member States in providing and updating information and data. At present almost all National Nodes are un-used and in need for improvement and development in order to achieve the objective of providing IGAD Secretariat and the MS with the information system needed for policy formation and marketing.

### **2.5.4 Emergency Management**

IGAD does not have any means of supporting Member States in managing emergencies, and it did not even develop a regional contingency plan on HPAI similar to the ones in EAC, ECOWAS and other RECs when two of its Member States were affected by HPAI.

### **2.5.5 Cross border harmonization**

Cross-border harmonisation activities and meetings in IGAD occur within the framework of LPI project and take the form of meetings and networks on selected issues that are common to the region. Some of the networks that have been created include the following:

- Cooperation in Cross-border Control of Animal Diseases (livestock movements, vaccinations)
- Regional Forum for Pastoralists and Livestock Service Providers in Pastoral Areas
- Regional Forum for Livestock Service Providers
- Forum for Input Producers and Suppliers

Key issues discussed at these meetings include livestock movements to markets and pasture as well as harmonization and coordination of vaccination to facilitate stock movements.

### 3. Human Health

#### 3.1 Overview of the health delivery systems

The IGAD Division of Health and Social Development was established in 2005 following the decision of the 24<sup>th</sup> session of IGAD Council of Ministers. While social issues cover a broader sector and include health, education, employment, housing, migration, culture, population and sports, the aims and objectives of the section are to promote, facilitate and harmonize common social policies, strategies and programs among MS in the areas of health, education and employment, to develop common strategies to combat major diseases such as HIV/AIDS, Tuberculosis and Malaria, improve cooperation and exchange of best practices and coordination with a view to harmonizing and integrating progressively the educational policy and systems at regional level and to strengthen the capacities of MS to manage migration flow for greater policy coherence at national and intra-regional levels.

The standard six building blocks of the health system (service delivery, health work force, information medical products, vaccines and technologies, and health financing) are still weak in the IGAD Member States. Most countries do not have measures for epidemic disease emergency preparedness, response and control. A declaration issued in March 2007 by the Ministers of Health expressed deep concern about the communicable disease crisis in the IGAD region and its negative impact on health and development of hundreds of millions of people, constituting a barrier for poverty reduction and human development, in particular:

- High morbidity and mortality from HIV and AIDS, Tuberculosis and Malaria,
- Increasing levels of drug resistance, further complicating disease management,
- Continued occurrence of complex emergencies during which communicable diseases outbreaks occurred,
- Increased risk of spread of avian influenza (H5N1) in the region,
- Spread of polio-virus to several countries in the IGAD Region including those where Polio-free status was achieved previously,
- Slow progress of elimination of measles and low routine immunisation coverage in several countries,
- Very high maternal and child mortality.

The Ministers of Health recognized that countries in the IGAD Region share similar health problems with massive cross-border population movements and that an outbreak in one country can negatively impact others, thus realized the overwhelming need for concerted collaborative actions by countries in the IGAD Region to address the communicable diseases and other health related issues.

The fact that most at risk population have not been adequately served, was recognized and the necessity to improve service delivery for the hard to reach and underserved population in order to achieve the universal access goal to HIV and AIDS prevention, treatment, care and, support have been underscored.

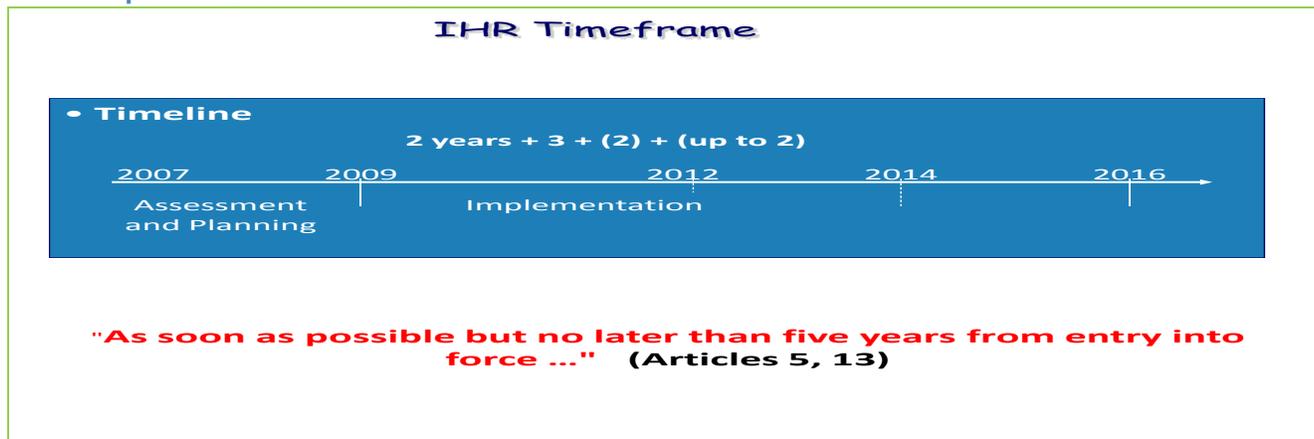
The Ministers of Health committed themselves to work with the Ministries of Finance in increasing investment in health as endorsed during the high level forum on achieving health related Millennium Development Goals as well as Abuja. They also decided to establish coordination and collaboration mechanisms between countries and border areas by empowering local health authorities at border areas to regularly exchange information and undertake cross-border coordination meetings and activities. A team of medical doctors and public health specialists has been created and based in Kampala, Uganda. This team has already carried out several field assessments and mapping surveys in the seven IGAD MS where they reported the importance of the population mobility in the region, the lack of policies related to the welfare of mobile populations and lack of medical structures in the border areas as well as lack of access to medical treatment and prevention measures for HIV/AIDS/STI/TB and malaria as defined priority diseases.

##### 3.1.1 IHR (2005) implementation

The International Health Regulations IHR (2005) is a legal instrument binding to the 194 countries across the globe, including all the WHO member countries. The aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.

The IHR (2005), which entered into force on 15 June 2007, requires member countries to report certain disease outbreaks and public health events to WHO. To assure timely application in a harmonized manner, discussions were held with high level executives, who were also given strategic orientation. Compliance with the IHR (2005) requirements includes the strict respect of timeframe indicated below (Figure 2). So far, Kenya and Uganda are the only IGAD Member states to have completed the core capacity assessment.

## 2: IHR implementation timetable



### 3.1.2 Policies and regulatory frameworks for prevention and control of epidemic and pandemics

Policy, regulatory framework or plans for prevention and control of epidemics and pandemics have been prepared by some IGAD member states (Uganda and Kenya). Also both countries have developed rapid response teams for AHI and have carried out simulation exercises along with other EAC Partner States. Also, an IGAD Regional HIV and AIDS Partnership Program (IRAPP) Medical technical team based in Kampala is preparing a concept note and technical documents in order to create similar teams in the IGAD region.

IGAD MS have not yet developed health protocol nor published acts on health matters; however declarations and resolutions on epidemic and pandemics preparedness and response, especially among mobile and internally displaced persons were issued by several IGAD Ministerial Committee Meetings on Health HIV and AIDS.

IGAD regional HIV/AIDS partnership program (IRAPP) which was initially established to assist the regional challenges of HIV/AIDS in addressing vulnerable groups, is broadening its mandate and scope of work to include other priorities diseases such as malaria, tuberculosis, diarrheal diseases, viral hemorrhagic fevers- Ebola, Marburg, Rift valley as well as avian and swine influenza (H1N1).

Also a Uganda based strong Technical Health Program focusing on HIV/AIDS among the mobile, internally displaced people and refugees was established in 2008 by IGAD. The WB IRAPP funded program conducted field surveys in 30 of the UNHCR activity sites. The assessment of the results led to mapping of more than 27 hot spots and 7 IDPs sites where mobile, internally displaced people and refugees are at high risk of HIV/AIDS, diarrhea diseases, malaria and, malnutrition. Also the Program has been successful in obtaining support from and in establishing very good relationships with UNAIDS UNFPA, CIDA as well as local NGOs.

### 3.1.3 Capacity of IGAD to support MS in public health delivery systems

IGAD health sector in MS is supported by the IRAPP team of six professional staff which is the only intervention dealing technically, logistically and operationally with all health related matters.

### 3.1.4 Inter-REC harmonization and coordination mechanisms

There no coordination mechanism other than IRAPP which is taking care of all health related matters in IGAD MS.

## 3.2 Surveillance and laboratory services

### 3.2.1 Integrated Disease Surveillance & Response (IDSR), International Health Regulations 2005 (IHR-2005)

All IGAD MS have adhered to the international health regulation having adapted IDSR strategy, ratified IHR (2005) and being fully committed to implement them. Most of them have been regularly reporting epidemic prone disease to WHO. In this context, Djibouti has reported one human cases of HPAI. A demonstration of how surveillance data has assisted in locating hot spots for Ebola and hemorrhagic fevers in Africa is illustrated in Annex 2 (Table 19 and 20 and Figure 3). Three IGAD Member states (Kenya, Uganda and Sudan) are believed to be located within the epicenter zone of the most new emerging infectious especially Ebola.

Most IGAD Member states (Uganda, Kenya, Ethiopia, Djibouti, Eritrea and Sudan) have established systems for the vertical surveillance for HIV/AIDS, malaria and tuberculosis. Although these diseases are listed among IDSR priority diseases, specific diseases oriented programs have preferred to have a parallel vertical surveillance system. Efforts are being made to integrate monthly reporting of this disease data base under IDSR priority diseases and reporting.

### **3.2.2 Laboratory diagnostic capacity**

Kenya, Uganda, and Ethiopia have very well equipped and staffed national reference laboratories. But at provincial and district levels, little has been done to set up good laboratories other than that aimed at HIV/AIDS screening and ART purposes which are not integrated laboratory support. Kenya, Uganda and Ethiopia have developed quality control mechanisms through national reference laboratories but no information available on this issue for Sudan, Djibouti and Somalia. In all IGAD MS accreditation is done on ad hoc basis, but efforts are undergoing to set up a regional accreditation mechanism to be adopted by all partner states.

### **3.2.3 Outbreak investigation systems and capacity**

Kenya and Uganda, have created virtual teams and trained through simulation exercises, but these teams need to be regularly refreshed and equipped with protective materials.

IDSR guidelines and reporting format have been developed in almost all IGAD MS but there are not adequately utilized.

No contingency stock and supplies exist at IGAD secretariat level and all IGAD MS rely on WHO contingency stocks set up in Harare for the most common epidemic prone diseases such as Cholera and H1N1. Tami flu, PPE of different size, mobile emergency tents, VHF communication radios, fridges and freezers and laboratory supplies are some of the products available ready for dispatch to countries within 72 hours in case of emergency.

The WHO run contingency stock is well managed using appropriate software which allows an easy monitoring of supplied drugs or protective equipment.

### **3.2.4 Regional Networks**

IGAD epidemiological, laboratory and communication networks are yet to be developed. However it is worth to mention that Uganda and Kenya have a good functioning laboratory and surveillance network established for EAC countries. Other IGAD are encouraged to join the already existing EAC network.

## **3.3 Epidemic and Pandemic Preparedness and Response Measures**

### **3.3.1 Partnerships**

IRAPP public health team has built a strong partnership with local and international NGOs as well as UN agencies (UNAIDS, UNFPA and UNCHR) with whom it works closely in more than 27 hot spots and IDPs camps. IRAPP provides technical, logistical as well as financial supports to the above mentioned partners.

### **3.3.2 IGAD capacity to cooperate and interact with public health services of Member States and other REC**

The capacity of IGAD is still very limited although IRAPP program is making tremendous effort to coordinate health interventions for the mobile and IDPs population in the 7 IGAD MS.

### **3.3.3 Disease information sharing and communication mechanisms**

IGAD MS have not yet developed a communication strategy. IGAD-IRAPP publishes a quarterly feedback newsletter which focuses mainly on field activities rather than on epidemiological data. The newsletter on IRAPP activities is shared with all IGAD member states as well as other implementing partners and funding institutions.

## 4. Communication

### 4.1 Public Awareness

#### 4.1.1 Overview of communication plans/strategies at MS and REC levels

The record of formal communication strategies for animal health in the Region are traced back to the Pan-African Rinderpest Campaign (PARC: 1988 – 1999; PACE: 1999 – 2009 and GREP: 2009 -2011). The communication strategy consisted of a multimedia approach promoted by FAO. By 1993, almost every PARC country had a provision for a communication component, whether available or in the pipeline, and about ten countries had made significant progress toward implementing a communication strategy, which consisted of a communication package that is sometimes called a multimedia approach. Its main focus was to assist the veterinary field staff with simple communication materials. However, most of the RECs, including IGAD, do not have a regional communication policy, strategy or plan for the prevention or control of TADs including avian influenza.

On the other hand, all IGAD countries have communication strategies on HPAI either within their national preparedness plans or separate from them.

**Kenya** has a harmonized communication plan/strategy for both human and animal influenzas which was developed in 2008, as well as a communication strategy for Rift Valley fever following the ravages inflicted by the disease among pastoral communities in early 2007 when over 159 people died from this disease in Kenya and Tanzania. Even for the concept paper on Preparedness and Response Plan for the Rift Valley Fever (2008), Kenya designated public awareness and education programmes as one of the pre-outbreak measures; signalling a growing understanding of the important role assigned to communication by national authorities in the region.

**Uganda:** a communication strategy was formulated by the communication working group (CWG) in 2008.

Sudan and Djibouti are the only IGAD countries that were affected by H5N1 HPAI outbreak. Despite the crucial nature of a solid communication strategy in such event, no evidence was found at federal/national and GoSS levels of a communication plan (and/or emergency AI communication plan). This is despite the country having had a vibrant communication Task Force when the virus was first detected in the Sudan.

**Regional:** A review of the communication strategies was conducted as part of the activities of SPINAP-AHI, through a communication cluster workshop which was held in Nairobi, Kenya, from 3 – 7 August 2009 and attended by IGAD countries such as Eritrea, Ethiopia, Kenya, Sudan and Uganda.

#### 4.1.2 Coordination mechanisms for communication and awareness campaigns

Following AI incursions globally, the IGAD Secretariat convened a workshop on Avian Influenza from 21-22 December 2005 in Djibouti for representatives from the IGAD member states' veterinary departments, ministries of health and wildlife authorities and from regional partner organizations (WHO, FAO and AU/ABAR,). At the end of the workshop, the participants agreed on the following as points of recommendations for the IGAD Secretariat<sup>7</sup>

- Assist member states in needs assessment study;
- Liaise with partner countries and international organizations for resource mobilization;
- Facilitate networking between member states and with other regional and international organizations;
- Assist in the review, development and harmonization of policies and legislations on AI in the Member States;
- Facilitate harmonization of national preparedness and action (response) plans;
- Strengthen partnership with other regional and international organizations.

As can be deduced from these recommendations, IGAD Secretariat was subsequently charged with coordinating the AI response in the region. This notwithstanding, the Secretariat established no formal mechanisms for coordinating communication or awareness campaigns on HPAI, nor any other TADs in the region.

At the level of the MS, various forms of coordination mechanisms are found. In Sudan, for example, a communication task force involving ministries of agriculture, health FAO, UNICEF and WHO was instituted soon after the HPAI outbreaks in 2006. Several countries have similar coordination mechanisms for avian influenza communication and sometimes for other TADs as well, though often coordinated by the livestock department.

FAO regional ECTAD bureau in Nairobi has also been active in coordinating communication activities related to HPAI and lately; to other TADs. Through recent and ongoing projects on HPAI for Eastern Africa region supported by European Union, USAID, Canada, Germany and Sweden among other donors, the office has been able to have a Regional

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<sup>7</sup> IGAD: IGAD Workshop Report on the Avian Influenza Hazard, Djibouti, 21-22 December 2005, page 7

Communication Officer who has coordinated animal health communication initiatives in the IGAD countries which form part of the wider geographic coverage of the bureau.

The AU-IBAR managed SPINAP-AH programme is another important coordination mechanism in the region. It has been providing assistance to various IGAD countries covered by the programme by supporting capacity building in communication (training of communication trainers' workshops) as well as for formulation of national communication strategy for avian and human influenza. Under the programme, 4 sensitization workshops were conducted in 2009 for communication focal points in MoH and MoA from 14 countries including some of the countries of IGAD.

Other coordination inputs in form of a Regional Seminar on Communication for English-speaking countries in Africa, was held in Gaborone from 22 – 23 September 2009. The OIE supported event aimed at sensitizing veterinary services to integrate communication into their infrastructure. This seminar was attended by the veterinary services officials, communication professionals from both the government communication offices, media and the private sector representatives. An extensive survey was presented on the communication capacity of the veterinary services of the countries participating at the seminar.

In addition the Nairobi based regional office of the USAID- supported Global Avian Influenza Behaviour Change and Communications Support Activity (AI.COMM) which was established in 2006 provided, until its closure late 2009, a wide range of technical assistance to affected countries in the region.

### 4.1.3 Advocacy and outreach

Advocacy is required to maintain the vigil and well preparedness of the general public in situations of disease outbreaks through:

- Supporting policy makers and senior managers in government, international development organizations, NGOs, and private sector to formulate supportive policies, provide resources, and authorize AI work place educational programmes;
- Providing continuous updates to keep the senior officials informed and interested;
- Informing and enlisting the support of regional and district administrators;
- Informing and enlisting the support of leaders at provincial, district and village levels;
- Enlisting and maintaining media support.

Examples of advocacy works done in IGAD MS:

Ethiopia: the National Coordinating Committee for AI, chaired by the Deputy Prime Minister and Minister of Agriculture and Rural Development constituted a national technical taskforce that outlined advocacy, resource mobilization and communication as some of the major tasks to be accomplished;

Uganda: the humanitarian organization, CARE Uganda, conducted outreach activities in western part of the country to mobilize communities and to heighten awareness about avian influenza (AI) among internally displaced persons (IDPs) in the districts of Amuru, Gulu, and Pader. The organization crafted a number of communication-based approaches, including the dissemination of messages through drama shows and FM radio as well as the integration of bird flu messages in hygiene and sanitation training sessions. It should be noted that FAO had conducted a KAP study in this region, though there is no evidence that CARE took into consideration the results of this study while designing their messages.

### 4.1.4 Level of education/literacy

The link between literacy levels and communication was critical before the advent of audio-video technology (radio, TV, mobile telephones) as the medium used in grass-root communication was always dependent on the literacy level of the intended audience. Upgrading the literacy capacity of the general public, particularly those living in rural communities could be useful in situations of TADs outbreaks when the rural community members are expected to evaluate information for credibility and quality, analyze relative risks and benefits, locate health information, etc. Some may even be able to effectively use advances in communication through handset mobile phones and through the search in the internet.

However, communication among ethnically diverse rural communities of IGAD region where livestock herders and poultry keepers need to articulate their concerns on the health of their stocks and describe the symptoms accurately, oral language is more effective communicator than written. Therefore, it is rather to explore practical innovative approaches based on the spoken traditional and local knowledge using tools such as participatory development communication (PDC) and village drama, etc.

## 4.2 Technical capacities

### 4.2.1 Technical Assistance

There is no mechanism or specific unit responsible for coordinating animal health communication or awareness campaigns at the IGAD Secretariat level as the Public Relations Unit of the Secretariat does not have the capacity to undertake such a function. The Agriculture and Environment Division itself does not have a specific person in charge of animal health communication. IGAD Secretariat is, therefore, not in a position to provide technical assistance to Member States' animal health communication systems. However, communication units exist in national veterinary services.

It is important that the frequently heard cry for the "strengthening of veterinary services", the classic supply-side call of beleaguered veterinary authorities, is put in development and poverty reduction process contexts if it is to attract the support and resources it undoubtedly deserves. More often than not, communication is pushed to the margins and is seldom included as an essential part of this process.

The development of capacities in communication by the veterinary services (VS) in countries where IGAD draws its membership can be closely linked to two main factors, namely; agricultural extension services by the governments line ministries, the implementation of programs of fight against major epizootics (especially Rinderpest).

In Sudan, the Communication Unit was set up within the Directorate of Animal Health and Epizootic Disease Control of the Ministry of Animal Resources and Fisheries (MoARF) during Pan African Rinderpest Campaign (PARC) and Pan African Control of Epizootics (PACE) programs. Staff assigned to this Unit is not sufficiently trained and qualified. There is no clear strategy and work plan and no activity report. Furthermore, the multimedia communication equipment is inadequate, insufficient or obsolete and the database for gathering information is missing.

The situation is worse in Eritrea where the Ministry of Agriculture (and livestock) does not have a communication department or unit (though there is an Extension Service). There is also a Public Relations Division but it does not have the technical and institutional set up to carry AI communication. On the better side is Uganda, which has overall a good technical capacity for undertaking animal and public health communication as both ministries of Agriculture and Health have experienced communication staff.

### 4.2.2 Communication units in national veterinary services

As already pointed out, prior to the recent HPAI campaigns, the most robust animal health communication campaign undertaken in the region was during the three phases of Rinderpest campaigns.

During the PARC period between 1987 and 1992, regional communication activities were funded through the FAO Technical Cooperation Programme (TCP) with additional funds from the Government of Belgium, totaling USD 1 million whilst specific national activities for the PARC national projects in Uganda and Sudan under the FAO/TCP programme amounted to \$200,000. Later, OAU/IBAR came to convince the majority of the PARC member countries that funding projects must include an average of 5 - 7% of their budgets to be devoted to communication activities. When PARC became PACE, the EC approved a second and more comprehensive Communication Project devoted to PACE which started in January 1996 amounting to approximately \$ 2.3 million over 3 years.

Under the avian influenza operations in the region, resource allocation to communication has been limited. In Uganda, for example, for 2006/2007 fiscal year, the government allocated mere US\$ 54,000 for communication on AI.

In June 2006 the African Development Bank (AfDB) approved a grant of US\$ 500,000 as emergency assistance to support the Sudanese government's initiatives on preparedness to combat avian influenza following the outbreak of the disease in the country. The grant was to help prepare long-term strategic plans and programmes to contain and control any outbreak of the pandemic. However, communication was not allocated much of the funds as the grant was divided between animal health and human health components.

Gaps in resources have been filled using the assistance of the bilateral and international cooperation mainly provided by FAO, OIE, UNICEF, APHIS-USDA, AED, WB, AU-IBAR, etc. These organizations provided an immediate technical and financial assistance in various forms to reinforce communication in the veterinary services.

FAO through its ECTAD unit for Eastern Africa, based in Nairobi, Kenya has invested in the region in terms of communication through capacity building and training on communication techniques and systems, development of mass media products (including national TV, radio, and print; brochures, posters, fact sheets, web-based communication).

AU-IBAR has also provided required resources for animal health communication under the SPINAP-AHI programme. The initiative has provided resources to help participating IGAD countries formulate national communication strategies as well as building the capacity of community/nation animal health workers in communication.

### 4.2.3 Capacity in ICTs

Even though the concept of ICTs encompasses other information and communication technologies beyond merely computer technology or internet connectivity, for our present purpose, however, we shall limit ourselves to internet connectivity.

Internet connectivity in the region has been boosted since 1996 through the USAID funded initiative – Leland. It is a vast program covering many years, has set an objective of connecting some 20 African countries including the IGAD countries of Kenya and Uganda to the "network of networks".

With the ongoing continental project to install the underwater optic cable from South Africa via Indian Ocean to countries northwards, it is hoped that connectivity will greatly improve within countries in the project range including Kenya and Somalia.

IGAD is also participating with Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Indian Ocean Commission (IOC) to implement an ICT support programme that will address issues such as regulatory framework, connectivity, information access and capacity building.

## 4.3 Mass media Environment

### 4.3.1 Media coverage of AHI, ERADs and other Zoonoses

Almost all IGAD countries carried out media coverage and public information campaigns on AI recently. However, no media coverage at the IGAD level has been undertaken, as there is no media house or institute that is IGAD oriented/based. In Sudan, the Communication task force was responsible for producing information messages and material (radio capsules, micro programmes, magazines) in electronic and printed form. Ministry of Health through the Health Promotion Department at federal/national and state levels conducted communication activities and organized meeting with media producers. The material was appropriate to the disease situation, but not sufficiently targeted for backyard producers, farm workers and owners, population at risk. The printed awareness material disseminated was not sufficient to cover all needs. In Uganda, several posters, handouts and radio and television spots were produced and used as part of a national campaign against HPAI in 2006. Posters were produced on preventive actions and also on eating of chicken; fact sheets were produced and distributed through 'the Monitor' newspaper; a media kit was developed and shared; radio spots were produced in 6 languages and aired for 30 days. Health promotion teams targeted 40 out of 80 districts (50%) including the capital, Kampala for mobilization activities between October and November 2006.

In western Uganda, CARE Uganda helped to produce radio drama for internally displaced persons (IDPs), and bolstered the efforts of local radio stations to raise awareness about AI by producing radio spot messages on AI, holding radio talk shows. They also distributed AI information, education, and communication (IEC) materials - booklets and leaflets - to partners, local leaders and other institutions to supplement the drama and information materials as well.

### 4.3.2 Media Campaign on AHI, ERADs and other Zoonoses

Several media and public information campaigns on avian and human influenza have been carried out in most countries of IGAD through NGOs, government departments and international development partners.

During the height of HPAI incursions in Sudan, a media campaign "means of transmission of HPAI among birds" was launched in 2006. The information was disseminated through the media (mainly Radio & TV). The efficacy seems to have been more effective in rural areas (more time allocated to listen to radio and to watch TV). A KAP survey was later carried out with funding support from FAO in the five infected states.

As a result of the ravages of Peste des Petits Ruminants (PPR) in Kenya in 2008, the Government in collaboration with FAO, UNDP and AU-IBAR carried out mass vaccination campaign covering 60 pastoral districts that were at risk. A robust public awareness campaign including sensitization accompanied the exercise where more than 1.5 million sheep and goats were vaccinated.

Another issue at the heart of recent or ongoing media awareness campaigns is that, by and large, communication campaigns for the prevention and control of AI have largely focused on human health (i.e. reducing human exposure to the virus) and less on animal health (i.e. preventing animal – to – animal transmission and onward spread). In the region, with many rural dwellers depending heavily on backyard poultry for their livelihood and protein source, animal to animal transmission would severely affect their livelihood and hence public awareness campaigns should be directed more to this end.

### 4.3.3 Communication networks, including the involvement of the NGO sector

A review of the status of animal health communication networks in IGAD region and the involvement of nongovernmental organizations (NGO) in these networks reveals an amorphous activity of the sector in the prevention and control of TADs, particularly HPAI. Unlike the progressive establishment of laboratory and epidemio-surveillance networks for the IGAD region under FAO's technical assistance, similar initiative for the communication network is lacking. However, several NGOs have worked side by side with other partners in ensuring that information and communication on various animal health issues prevalent in the region are sufficiently addressed. In Uganda, for example, CARE International was active in western part of the country in AI communications and community mobilization, whereas AI.COMM supported by USAID and based in Nairobi, Kenya has also been active in animal health communication networks in the region before it folded its activities.

## 5. Coordination

### 5.1 Sectoral coordination within IGAD

Livestock are resources in abundance in the IGAD Region, and occupy a strategic position in uplifting the rural poor from poverty. The majority of livestock in the region are kept in dry-lands and marginal areas not suitable for crop production. In spite of this, in terms of policy formulation, livestock have only been considered in relation to their contribution to crop production as opposed to being singularly treated as a major contributor to food security of the majority of people in the region, especially those in rural areas who form the bulk of the population in the region. In recent years there has been a shift in thinking however, and now IGAD has robust initiatives aimed at promoting the utilization and trade in livestock resources through policy formulation as a collaborative effort with FAO through the implementation of the IGAD Livestock Policy Initiative (LPI).

In terms of sectoral coordination, livestock activities fall under the Division of Agriculture and Environment under the Programme Manager responsible for Agriculture, Livestock and Food Security. There is no specific office responsible for livestock sectoral activities. At Ministerial level, this division reports to IGAD Ministers responsible for Agriculture and Animal Resources through the normal IGAD structures.

The coordination and elaboration of livestock sectoral programmes under IGAD is guided and elaborated in various Strategies developed over many years of which the latest is the IGAD Food Security Strategy 2005-2008. In the strategy, IGAD's role is defined as policy formulation and harmonization, information generation, capacity building, and research and technology which are the strategic outputs of the organization. In this regard IGAD will catalyze, facilitate, coordinate, advocate and provide networking in identified areas in addition to regional program formulation and financial mobilization. The Regional Food Security Strategy has four components with 31 interventions comprising 10 development projects, 11 studies, and 10 networking activities. These interventions were adopted at a regional stakeholders workshop held in Nairobi, Kenya from 1-3 February 2005. Livestock interventions cover livestock policy, livestock information, animal disease control, marketing information, and harmonization of SPS standards. Under studies, the selected areas cover pest surveillance, regional livestock development strategy, and informal cross-border traders. The networking areas selected under livestock cover cross-border livestock disease control and the creation of fora for pastoralists and service providers. A total of US\$15.7 million was raised for the implementation of the animal resources programme covering regional animal disease and tsetse control projects. Table 10 below summarizes priority regional interventions for food security and livestock in IGAD.

**Table 10: Priority Regional Intervention for Livestock**

<b>Crop Production</b>		
<b>Programmes /projects</b>	<b>Studies</b>	<b>Networks</b>
<b>1. Water Harvesting Project for the drylands</b> <b>2. Drylands Management Programme (including animal feeds)</b> <b>3. Fertilizer and inputs Programme</b>	1. Inputs Laws and Regulations/ seeds certifications 2. Study on Fertilizer Use (including Profitability) 3. Pest Surveillance	1. Drylands Management Network 2. Forum for Input Producers and Suppliers 3. Drylands Research Centers Network
<b>Livestock Development</b>		
<b>Programmes/projects</b>	<b>Studies</b>	<b>Networks</b>
<b>1. Pro-poor Livestock Policies Project</b> <b>2. Livestock Information System for Feeds, Animal Health and markets</b> <b>3. Transboundary Animal Disease Control</b>	1. Regional Strategy for Livestock Development 2. Harmonisation of Regulations (Animal Health, Feeds, Drugs, etc) 3. Study on Fish Trade among Member States	1. Cooperation in Cross-border Control of Animal Diseases (livestock Movements, Vaccinations) 2. Regional Forum for Pastoralists and Livestock Service Providers in Pastoral Areas 3. Regional Forum for Livestock Service Providers
<b>Trade and Marketing</b>		
<b>Programmes/projects</b>	<b>Studies</b>	<b>Networks</b>
<b>1. Regional Marketing Information System (for crops and animals)</b> <b>2. Trade Policy Harmonisation</b> <b>3. Harmonisation of Zoo-sanitary and Phyto-sanitary Standards</b>	1. Informal Cross-border Trade 2. Food Consumption Patterns 3. Regional Status/Policy on GMO (crops and animals)	1. PRSP Networks 2. GMO Networks

Discussions with the IGAD Programme Manager, Agriculture, Livestock and Food Security revealed that although the region does not have a specific office responsible for livestock activity coordination, some work has been undertaken through the Livestock Policy Initiative Project implemented by the FAO through a Contribution Agreement from the European Union. Recently at its 5th Steering Committee Meeting held in January 2010, the meeting stressed and encouraged the project to assume the role of IGAD's livestock secretariat in the interim and further expressed the need for IGAD to establish the Livestock Unit at the IGAD Secretariat to further the livestock agenda at regional and national level. The IGAD Ministers have also adopted the Regional Policy Framework on Animal Health in the Context of Trade and Vulnerability.

### **The IGAD Livestock Policy Initiative (LPI)**

The Livestock Policy Initiative is an IGAD project administered by FAO and funded by the EC. The objective of the project is to strengthen the capacity of IGAD, its Member States, and other regional organizations and stakeholders to formulate and implement livestock sector and related policies that sustainably reduce poverty and food insecurity.

The Project started in January 2006 and it is expected to end in February 2014. The LPI project is guided by a Steering Committee with membership from IGAD Member States, IGAD Secretariat, AU-IBAR, EC, ILRI, and FAO as implementers. The project is funded for €7.308 million.

The project is engaged in the following set of activities:

- Stakeholder Engagement and Identification of Issues
- Knowledge Sharing
- Capacity Building

- Negotiation and Fostering the Policy Dialogue

Although the above activities are listed as areas of project engagement, the actual outputs of the project are much greater as it has assumed many functions normally performed by a livestock sectoral coordination office at regional level. The challenge is however, over-reliance by IGAD on this project with a life span on functions which it should normally be doing. Some of the notable outputs of this project are the Regional Policy Framework on Animal Health in the Context of Trade and Vulnerability which has been adopted by IGAD, Livestock Information System on animal health and marketing, and various policy studies and networking activities in the framework of trade.

As concluding statement on livestock sectoral coordination at IGAD, there is no specific office dealing with livestock and animal disease matters, but the IGAD Livestock Policy Initiative. While in the long term it is not sustainable to anchor such functions which are long term on a project, there is however a good opportunity for IGAD to assume these functions under its normative work using the LPI existing coordination mechanisms.

### **The Regional Policy Framework on Animal Health in the Context of Trade and Vulnerability**

The Policy Framework will be an agreement between IGAD Member States on common regional objectives that they will then work towards through the development of national policies. The policy will be agreed at regional level but it will be driven by Member States by developing national positions which will be then harmonized at regional level. National positions will be developed through 'National Hubs' which are multi-disciplinary teams created in each of the IGAD Member States to ensure broad stakeholder participation in the policy formulation process. National Livestock Information Nodes will provide support by providing documentation and analysis of issues being discussed with emphasis on poorer livestock farmers.

## **5.2 Capacity development**

IGAD does not have any specific capacity building initiative targeting animal health disease control, but through the LPI project, Member States are supported for better policy formulation targeting poorer farmers. Some of these policy initiatives indirectly affect disease control such as cross-border harmonization of animal movements. LPI project is the instrument used to support IGAD Member States with capacity building through various studies, information generation and networking. The following areas have been identified for capacity building in IGAD:

- Strengthening regulatory institutions, certification processes, traceability mechanism, welfare, drug quality control;
- Building capacity of veterinary services in the region; and
- Capacity building of private services providers (standards, training, national curricula for animal health professionals).

The details of how the above suggested capacity building programmes will be implemented are still missing.

## **5.3 Coordination with other RECs**

IGAD is part of the Inter Regional Coordination Committee (IRCC) that serves as a forum in which COMESA, EAC and IOC, SADC and the EU, with the ACP Secretariat as an observer, work together on EDF programming, agree on common projects and develop a common understanding. The IRCC has the following three specific objectives: Improve the coordination on the development and monitoring of regional programmes; Coordinate regional policy agendas; Improve Aid effectiveness in the region.

IRCC provides a platform for sharing of information on projects and programs, which contribute to Regional Integration Agendas and Regional Cooperation. This contribute to the optimal use of scarce resources, national and regional programming and help in ensuring national/regional dialogue and coherence. The IRCC membership is composed of the following entities (ordinary, invited and ad hoc observers): Ordinary members: Heads of the regional organizations (COMESA, EAC, IGAD, IOC and SADC); Invited members; Representatives of the European Commission and the concerned EC Delegations; Representative of the ACP Secretariat; Ad hoc members: The AU and other partners can be invited on an ad hoc basis to an IRCC meeting.

## **6. Partnership**

### **6.1 Assistance to IGAD in control of TADs and zoonoses**

No specific assistance is provided to IGAD in the control of TADs and Zoonoses. However, the European Union has granted a contribution to IGAD to support the development of policies for the livestock sector (LPI).

### **6.2 Coordination mechanism between IGAD and technical and financial partners**

With the revitalization of IGAD in 1996, IGAD Development Partners steadily increased. In January 1997 IGAD found it necessary to establish formal relationships with the "Friends of IGAD", a group of partners who were working closely with the Secretariat. The IGAD Partners Forum (IPF) was therefore created with three levels of partnership organs at ministerial, ambassadorial and technical level.

The 1st Joint Ministerial Meeting of IPF, which was held in Rome, Italy in January 1998, decided to establish the Project Implementation Committee with its own Terms of References. The Committee started its function in November 1998.

The IGAD Chairman is the Chairman of IPF and the Government of Italy was appointed by partners to be the first co-Chair. The IPF is comprised of the following members under the present co-chairmanship of the Italian Government: Austria, Belgium, Canada, Denmark, France, Greece, Germany, Ireland, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States of America, European Commission, and International Organization for Migration, United Nations Development Programme, and the World Bank.

## PART III: CONCLUSION AND RECOMMENDATIONS

### I. CONCLUSION

Transboundary animal diseases (TADs) will continue to be a serious threat to IGAD member states, especially as the numbers of livestock increase in response to demand triggered by improved living conditions. The major policy issue is to ensure the region is better prepared, that countries can react faster and stop the diseases in their tracks. There is need, therefore, to improve the basic infrastructure of human and veterinary health systems in order to control endemic zoonotic diseases. Clear and sound information is required for emergency response, planning, decision making and resource allocation. This calls for intensified advocacy for increased public and political awareness on the TADs, particularly the less reported ones like rabies.

Strong epidemiological, laboratory networks including networks for information exchange and analysis based on rigorous disease surveillance at national and IGAD regional level is necessary. Contingency planning for TADs outbreak is also critical and will require technical assistance from traditional partners such as FAO, OIE, AU-IBAR as well as financial resources from donors.

The establishment of an integrated regional coordination mechanism (IRCM) for the prevention and control of TADs in the IGAD region will require concerted efforts by different stakeholders, spearheaded by the Division of Agriculture and Environment and with technical assistance from partners such as FAO, AU IBAR, OIE, etc. This will need to take into consideration the present coordination capacity of the Division at the IGAD Secretariat vis-à-vis IGAD's mandate and obligations to her Member States.

### 2. RECOMMENDATIONS

In view of the situational analysis of IGAD as regards the prospects of establishing an integrated regional coordination mechanism for the prevention and control of TADs, the following actions are recommended:

#### Recommendations at the level of the IGAD Member States

1. Monitor the implementation of IHR core capacities by completing the IHR Core Capacities Monitoring Questionnaire for their respective country and submit it to WHO.
2. Strengthen communication among themselves by setting up an institutional strategic plan for TAD's and Zoonotic diseases
3. Improve the cross-border animal movements and control measures through delivery Animal Movement Permit
4. Harmonize certification system, livestock identification and traceability system to mitigate risks of spreading pathogens in the region.
5. Need for the region to evaluate its control strategies towards less reflected TADs and zoonoses; particularly rabies and include a strong public awareness (communication) aspect to highlight the importance of these diseases as public health concern. IGAD to prioritise animal diseases similar to what has been done in the EAC (where eleven diseases are listed as a priority with plans developed to manage them at regional level) in order to ensure sustained focusing and adequate resources allocation.
6. Enhance the collection and dissemination of information on cross border livestock trade; since this is a major concern in prevention and control of TADs and zoonoses in the region as live animals that are traded are a potential sources of infections.
7. In order to ensure sustainable conservation in the sub-region, there is need for IGAD Member States to promote community participation in wildlife management by ensuring community based natural resource management in addition to inter-country cooperation in the management of trans-boundary natural resources
8. In order to curb counterfeit veterinary medicinal products and the retailing of substandard products at a lower price than recognised brands, there is need to establish effective legislation and its enforcement for the registration, distribution and quality control of veterinary medicinal products in each country.
9. On public health, as regards the core capacity assessment (resources needed, capacity building, access to medicine and laboratory equipment as well as a list of all priority diseases for the sub region), Kenya and Uganda are the only IGAD Member states to have completed this assessment. The remaining countries are encouraged to speed up the process in order to meet the established/indicated time line.
10. All countries of IGAD should follow the OIE PVS Pathway (Initial PVS evaluation, PVS Gap Analysis, PVS Follow-up Evaluations), developed by the OIE to improve the quality of Veterinary Services

11. Important effort shall be made to upgrade the veterinary legislation, which is a prerequisite to support good governance and provide the legal framework for all key activities of the VS.

### **Recommendations at the level of IGAD Secretariat**

1. IGAD Secretariat need to look for ways of establishing a formal mechanism/s for coordinating communication or awareness campaigns on TADs in the region; preferably through promotion and establishment of regional network for animal health communications.
2. Need for IGAD to formulate regional policy for the prevention and control of TADs and zoonoses, with robust communication strategy to drive the plan/strategy in line with the One Health concept.
3. A serious impediment to the development of veterinary services is the shortage of qualified human resources. Important effort should be made to improve initial training and continuing education for all the veterinary services' staff of the partner states.

### **IGAD Partners (AU-IBAR, FAO, OIE, WHO, etc)**

1. Strengthen information sharing, policy formulation and early warning system by establishing the AU-Observatory with Human, Animal and Wildlife Health departments through IGAD and encouraging national health institutions to join the network in order to improve, strengthen and extend the laboratory, epidemio-surveillance and communication networks between the MS and provide assistance when required.
2. Support Member States to strengthen the national health institutions using all available legal, technical frameworks and materials by providing the translation of the framework and tool in French, English and Arabic, finalizing the web based monitoring tool as soon as possible and inform Member States accordingly.
3. Create a reference list of African experts in three health domains (human, domestic animals and wildlife) accessible to all alternates and other relevant officers and update it regularly.
4. Support IGAD secretariat in establishment of Early Warning Data Management System (EWDMS): through technical support, integration and harmonization system between the member states throughout the Observatory and establish middle and long term development plan. It should be connected to and fully compatible with the World Animal Health Information System (WAHIS), especially in relation to notification of animal diseases.
5. The existing Sanitary and Phytosanitary Standards (SPS) of IGAD need to be harmonized with EAC and operationalized on member states in order to become AU standards on bio security.

**ANNEXES**  
**Annex I: IRCM Guidelines**

**Guidelines for the Review of capacities of the Regional Economic Communities and Member States towards the formulation of the IRCM**

**February 2010**

# Contents

1	Acknowledgments	45
2	List of acronyms	46
3	Introduction	47
4	Background	48
5	Approaches and methodology	51
6	Scope of work	52
7	Conduct of the process	55
8	Products of the process	56
9	Composition of the team	
10	Annexes	
	Annex 1: Terms of reference Team Leader	
	Annex 2: Terms of Reference OIE-certified PVS experts	
	Annex 3: Terms of Reference Livestock Production/ Bio-security Expert	
	Annex 4: Terms of Reference Veterinary Epidemiologist/Disease control Expert	<b>Error! Bookmark not defined.</b>
	Annex 5: Terms of Reference Wildlife Veterinarian/Ecologist	
	Annex 6: Terms of Reference Human Health Expert	
	Annex 7: Terms of Reference Communication Expert	<b>Error! Bookmark not defined.</b>

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## I List of acronyms

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<b>AEC</b>	African Economic Community
<b>AI</b>	Avian Influenza
<b>AHI</b>	Animal (Avian) and Human Influenza
<b>AU</b>	African Union
<b>AUC</b>	African Union Commission
<b>AUC/DSA</b>	African Union Commission/Department of Social Affairs
<b>AU-IBAR</b>	Africa Union Inter-African Bureau for Animal Resources
<b>ECOSOCC</b>	Economic, Social and Cultural Council of the African Union
<b>EID</b>	Emerging Infectious Diseases
<b>ERAD</b>	Emerging and Re-emerging Animal Diseases
<b>ERID</b>	Emerging and Re-emerging Infectious Diseases
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GLEWS</b>	Global Early Warning and Response System for Trans-boundary animal Diseases
<b>HPAI</b>	Highly Pathogenic Avian Influenza
<b>IDSR</b>	Integrated Disease Surveillance and Response
<b>INAP</b>	Integrated National Action Program
<b>IRCM</b>	Integrated Regional Coordination Mechanism
<b>IUCN</b>	International Union for Conservation of Nature
<b>NGO</b>	Non-Governmental Organizations
<b>NMTP</b>	National Medium Term Priority Plan
<b>OFFLU</b>	Joint OIE-FAO network of expertise on animal influenza
<b>OIE</b>	World Animal Health Organization
<b>OWOH</b>	One World One Health
<b>PVS</b>	Performance of Veterinary Services
<b>RAHC</b>	Regional Animal Health Center
<b>REC</b>	Regional Economic Community
<b>SG</b>	Secretary General
<b>SPINAP-AHI</b>	Support Program to the Integrated National Action Plans-Animal Human Influenza
<b>SSA</b>	Sub-Saharan Africa
<b>STCs</b>	Specialized Technical Committees
<b>TADs</b>	Trans-boundary Animal Diseases
<b>UNICEF</b>	United Nations Children's Fund
<b>UNISIC</b>	UN System Influenza Coordinator
<b>VS</b>	Veterinary Services
<b>WAHIS</b>	World Animal Health Information system
<b>WAHID</b>	World Animal Health Information Database
<b>WHO</b>	World Health Organization

## 2 Introduction

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1. Harmonization and coordination mechanisms at regional level have been recognized as a means to enhance national capacities to prevent and control trans-boundary animal diseases (TADs) and zoonoses. In the context of the African Union (AU), coordination and harmonization mechanisms at the Regional Economic Communities (REC) level are equally important for the facilitation of cross border trade and promotion of regional integration.
2. The African Union recognizes RECs as the building blocks for the economic and political integration within the African continent. As a consequence, AU institutional structures are strategically mandated to work through the RECs in the execution of their mandates. On their part AU Member States are committed to strengthening the RECs and harmonizing their activities along the vision of the creation of an African Common Market, through the steps set out in the Treaty establishing the African Economic Community (AEC) [Abuja Treaty].
3. To improve the relationship between the African Union Commission (AUC) and RECs, a protocol was recently adopted by the AU, with the following objectives:
  - Formalize, consolidate and promote closer co-operation among RECs and between them and the AU through the co-ordination and harmonization of their policies, measures, program and activities in all fields and sectors;
  - Establish a framework for co-ordination of the activities of RECs in their contribution to the realization of the objectives of the Constitutive Act of the AU and the Abuja Treaty;
  - Strengthen the RECs in accordance with the provision of the Abuja Treaty and decisions of the AU;
  - Implement the Sirte Declaration with regard to the acceleration of the integration process and shorten the periods provided for in Article 6 of the Abuja Treaty;
  - Set and monitor general and specific benchmarks for the establishment of the African Common Market;
  - Establish a framework for linking the operations of the Specialized Technical Committees (STCs) and the Sectoral Cluster Committees of the Economic, Social and Cultural Council of the AU (ECOSOCC) to the operations of the RECs;
  - Establish a co-ordination mechanism of regional and continental efforts for the development of common positions by its members in negotiations at the multilateral level;
  - Encourage the sharing of experiences in all fields among the RECs and ensure harmonization of their cooperation with potential donors and international financial institutions;
  - Ensure that gender is mainstreamed into all the programs and activities within the relationships among the RECs and between the RECs and the AU.
4. The proposed Integrated Regional Coordination Mechanism (IRCM) for the prevention and control of Trans-boundary Animal Diseases (TADs) and Zoonoses is therefore in line with the political agenda of the AU for accelerated integration. The IRCM aims at strengthening the capacity of RECs, in terms of prevention and control of TADs and zoonoses, to coordinate and harmonize actions implemented by Member States through capacity building, promotion of inter-sectoral coordination and institutionalization of coordination procedures and practices. The proposed IRCM will initially focus on a limited number of TADs and zoonoses prioritized by the RECs, with the medium term objective of expanding its scope to all other relevant TADs and zoonoses. The IRCM will also be instrumental in promoting the “One World One Health” (OWOH) concept at national, regional and continental levels.

### 3 Background

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5. Recent experiences in addressing Highly Pathogenic Avian Influenza (H5N1) and responding to pandemic influenza (H1N1) have confirmed that emerging infectious diseases (EID) pose continuous threats to human life and wellbeing, either because of human and animal morbidity and mortality or indirect impact on food security due to loss of animal food sources and livelihoods.

6. The Highly Pathogenic Avian Influenza (HPAI) caused by the avian influenza virus has been responsible for outbreaks in poultry in different parts of the world at different times in the 19th and 20th century. The recent wave of HPAI outbreaks (H5N1) has been the most dramatic, resulting in a massive international and domestic mobilization of financial and technical resources to prevent and control outbreaks. Due to its zoonotic nature, ability to spread rapidly and high impact, among others, HPAI sparked a global pandemic threat that has largely driven its control efforts since 2003. High level resource mobilization events were held to raise funds and articulate technical strategies for prevention and control at country level. These included the following:

- The Geneva International Conference on Avian and Human Influenza (AHI) in November 2005 that led to the preparation and adoption of a joint OIE/FAO/WHO strategy supported by the World Bank and other donors.
- The Beijing (January 2006), Vienna (June 2006), Bamako (December 2006), New Delhi (December 2007) and Sharm El Sheikh (October 2008) and other international conferences that generated donor commitments totalling US\$ 3 billion. – it was proposed to list all the international meetings here

7. The joint intervention strategy unveiled in Geneva was also adopted by the other conferences referred to above, where it was agreed to concentrate the mobilization of the international community on urgent programs and projects with a long-term focus. For Africa, the regional coordination of activities was accorded high priority especially given existing initiatives and the role of the Partnership.

8. A multi-institutional and interdisciplinary Task-Force involving staff from the Inter-African Bureau of Animal Resources for the Africa Union (AU-IBAR), the Food and Agriculture Organization (FAO), the World Organisation for Animal Health (OIE), the United Nations Children’s Fund (UNICEF) and the World Health Organization (WHO) was set up under the auspices of the ALive Partnership to prepare a report on “Avian Influenza Prevention and Control and Human Influenza Pandemic Preparedness in Africa - Assessment of Financial Needs and Gaps” for the Fourth International Conference on Avian Influenza held in Bamako, Mali in December 2006. This report was updated in 2007 for the Fifth International Conference on Avian and Human Influenza held in New Delhi, India, in December 2007. At both Ministerial conferences Africa spoke with one voice and presented its needs. The earmarked programs and projects were required to prioritize animal level interventions, to consider the danger of spread of infection to humans, potential pandemic spread, and the socio-economic impacts for all stakeholders. They were thus dubbed “Integrated National Action Programs” (INAPs).

9. The INAPs were designed to be steered by the countries (via their National Coordination Task Forces or Committees) and prepared with the help of technical experts provided by the international (OIE, FAO, and WHO) and regional technical organizations (AU-IBAR and WHO-AFRO) and the Regional Animal Health Centers (RAHC) in Sub-Saharan Africa (SSA) based in Bamako, Gaborone and Nairobi.

10. Whether countries had undertaken the rapid assessment or not, it emerged that the INAPs were almost exclusively country plans, missing the cross-border and regional dimensions with regards to coordination arrangements in prevention, preparedness and rapid response. This was highlighted by difficulties encountered in regional coordination during simulation exercises conducted to test regional strategies on HPAI and during real outbreaks between neighboring countries and was also expressed by countries during regional technical coordination workshops organized by the Support Program to Integrated National Action Plan – Avian and Human Influenza (SPINAP-AHI) program.

11. The global situation has been complicated by the recent declaration of pandemic influenza due to the novel A (H1N1) virus. Although largely a human infection, H1N1 has been reported from animals, and has sparked new fear of re-assortment with the more pathogenic but less transmissible (among humans) H5N1 virus. Presently, H5N1 is endemic in Egypt in Africa and in Indonesia in SE Asia and in these countries, both H1N1 and H5N1, are circulating simultaneously. The management of outbreaks of these two viruses has been a challenge in African countries partly because of paucity of

resources, weak systems and capacities of the public and veterinary health systems, poor coordination between sectors, agencies and countries.

12. An adequate response to the global Avian and Human Influenza (AHI) threat must entail collaboration between partners across sectors, particularly animal and human health, and donors agencies. Such an integrated approach should start with common objectives that bring together the human and animal health sectors to address zoonotic diseases more strategically, prevent the spread of AI among animals, and reduce the risk of a human infection or influenza pandemic.

13. Recent emerging or re-emerging infectious diseases of global public health concern have demonstrated the magnitude of these issues for human and animal health, and stressed the importance of effective partnerships between Veterinary and Human Health Services. The relevant international organizations – namely, the World Organization for Animal Health (OIE), the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) have taken the lead in the preparation of global strategies and guidelines for animal and human health in addressing AHI. The guidelines for the formulation of the IRCM build on these strategies.

14. The prevention and control of AHI and other emerging and re-emerging animal diseases (ERADs), including zoonoses, at their animal source, including wildlife, is therefore a priority.

15. A country's capacity to prevent, detect and control an epidemic of AHI (and other emerging and re-emerging animal diseases and zoonoses) depends essentially on the quality of its Public Health and Veterinary Services and their ability to effectively coordinate preparedness, prevention, surveillance and rapid response mechanisms with neighbouring countries, thus the need for IRCM.

16. The OIE has developed the Evaluation of Performance of Veterinary Services (OIE PVS Tool) and the PVS Gap Analysis tools to evaluate veterinary services (VS) and determine the level of investment required to improve their performance. The country PVS reports, incorporating OIE's public standards democratically approved by its Member Countries (see in particular OIE Terrestrial Animal Health Code, Chapters 3.1. and 3.2. and OIE Aquatic Animal Health Code, Chapter 3.1.), shall be used to review veterinary services and/or aquatic animal health services, with a longer-term goal of sustainable capacity-building for veterinary services and/or aquatic animal health services. The existing country PVS Reports, and PVS Gap Analysis documents, if available for Donors and Partners, will be used to identify main areas of support to be addressed at REC level.

17. While support at country level has been significant and HPAI has not spread as initially feared in SSA due to the rapid control of outbreaks in affected countries and increased preparedness, it is now becoming evident that country focused interventions alone cannot fully address rapidly spreading emerging and re-emerging infectious diseases (ERIDs), as recently shown by the Influenza A (H1N1) pandemic. Equally evident is the fact that improved inter-sectoral collaboration (Public Health and Veterinary services) and coordination mechanisms at REC level, both within and across the RECs, are urgently needed to prevent and control rapidly spreading infectious animal diseases, including zoonoses.

18. The concept of "One World, One Health" has recently been promoted to reiterate that there are strong linkages between animal diseases and public health. It has long been known that 60% of known human infectious diseases have their source in animals (whether domestic or wild), as do 75% of emerging human diseases. It is also evident that the human population needs a regular diet of protein from milk, eggs or meat, and that a deficiency of these nutritive elements can also be a public health problem. Animal diseases alone are responsible for production losses estimated at 20%. The unprecedented flow of commodities and people gives pathogens of all kinds the opportunity to spread and multiply around the world, and climate change can enable them to extend their range, notably through vectors such as insects colonizing new areas that until a few years ago were too cold for them to survive the winter. The only way to prevent and mitigate the negative effects all these new hazards is to adapt the existing systems of health governance at world, regional and national levels in a harmonized and coordinated manner.

19. A number of international initiatives have been put in place by OIE, WHO and FAO to increase coordination and collaboration, information sharing and early warning systems. The OIE, WHO and FAO (with the support of UNICEF, the UN System Influenza Coordinator [UNISIC] and the World Bank) have prepared a consensus document on global measures needed to coordinate medical and veterinary health policies more effectively, taking into account new requirements to prevent and control zoonoses: "Contributing to One World, One Health<sup>8</sup> - A Strategic Framework for

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<sup>8</sup> The 'One World, One Health' concept, that establishes a more interdisciplinary and cross-sectoral approach to preventing epidemic or epizootic disease and for maintaining ecosystem integrity, is a trademark of the Wildlife Conservation Society.

Reducing Risks of Infectious Diseases at the Animal–Human–Ecosystems Interface”. This document was presented and adopted by the Ministers of more than 100 countries at a Conference in Sharm El Sheikh, Egypt, in October 2008.

20. AU-IBAR, the technical office of the AU responsible for the improvement of animal resources on the continent, cognizant of the importance of strengthening veterinary services and improving cooperation with the Public Health Sector organized a series of technical meetings<sup>9</sup> in 2009 to raise awareness with decision makers, technical experts, international and development partners at national, regional and continental level. The importance of strengthening or establishing coordination and harmonization mechanisms at REC and inter-REC levels was reiterated in several fora.

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<sup>9</sup> Addis Ababa meeting on 18-21 August 2009 and Naivasha meeting on 18-21 October 2009.

## 4 Approaches and methodology

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21. In light of the experiences gained through the INAP formulation and the implementation of the SPINAP-AHI and other programs designed to reduce the impact of TADs at continental and regional levels, the AU-IBAR, with the Department of Social Affairs (DSA) of the AUC and the RECs, and in collaboration with relevant international partners (OIE, FAO and WHO), is leading a new initiative to assist RECs and Member Countries in the definition of modalities and approaches to improve harmonization and coordination mechanisms at REC and inter-REC levels, so as to strengthen national and regional capacities to prevent and control ERADs and zoonoses, in Africa.

22. The IRCM will be steered by RECs in collaboration with Member Countries. Linkages with international and technical partners should be maintained to ensure technical support to RECs and Member Countries. In accordance with the goals set by the international community, the immediate, as well as medium- and long-term needs, must be identified so that RECs' capacities can sustainably be enhanced, particularly in the area of harmonization and coordination (vertical and horizontal) so as to strengthen the capacity of Member Countries in preparedness, prevention and rapid control measures to combat, not only AHI but also the emerging and re-emerging infectious diseases, including zoonoses, prioritized at REC level.

23. The proposed IRCM will be formulated based on a review of Member Countries capacities and gaps to effectively prevent and control emerging infectious diseases, consistent with REC sectoral strategies and plans, and anchored on REC institutional frameworks. The country review will initially be carried out through a desk-top analysis of existing documents, such as the INAPs, OIE-PVS and PVS Gap-Analysis reports<sup>10</sup>, WHO country assessment reports (implementation status of International Health Regulations [IHR 2005], Integrated Disease Surveillance and Response [IDSR] and Health systems), NMTP<sup>11</sup>'s and Regional reports, Monitoring and Evaluation (M&E) reports of beneficiary countries of SPINAP-AHI and other relevant documentation. In case baseline information of countries belonging to a particular REC is not adequate, AU-IBAR may consider gathering missing information through direct dialogue with relevant authorities in, and/or visit the countries concerned. The desk analysis should include the identification of potential activities to be undertaken at REC level so as to maximize synergies among Member Countries and strengthen coordination and harmonization capacities at regional level.

24. At REC level, in addition to the desk review, the appraisal will also be based on direct dialogue with their respective Secretariats/Commission, during which the following will be analyzed:

- Treaties establishing the RECs and other relevant legal instruments
- Institutional arrangements (including relevant committees and sub-committees)
- Strategic plans or programs, both on going and planned
- RECs programs and activities in terms of coordination and harmonization
- REC priorities
- Resources and capacities available
- Gaps and needs
- Inter-REC coordination
- External support available to the REC

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<sup>10</sup> Availability of these OIE-PVS and PVS Gap Analysis reports is subordinated to a prior agreement of countries.

<sup>11</sup> National Medium Term Priority Plan

## 5 Scope of work

25. The desk review and on-site visits shall provide relevant information required for the compilation of the synthesis of Member Countries and RECs situation with regard to the objective of the assignment. In compiling the synthesis of the RECs, the situation of their Member Countries shall be referred to and taken into account. In particular, the following issues, but not exclusively, should be reviewed in the compilation of the REC synthesis reports:

### **i. The current status of AHI and other ERADs and zoonoses, in the region**

- Status of AHI and other ERADs and zoonoses, in terms of the nature and impact of past and present outbreaks
- Level of awareness of stakeholders on potential risks of AHI and other ERADs and zoonoses
- Role of RECs in the prevention and control of TADs and other ERADs and zoonoses

### **ii. Planning and Coordination**

#### Strategic Plan for AHI and other ERADs and zoonoses

- Existence and quality (technical soundness, consistent with international standards, feasibility) strategic plans to prevent and control AHI and other selected ERADs and zoonoses
- Steps undertaken to develop strategic plans, when not available.
- Institutional, legal and regulatory frameworks supporting strategic plans
- Costing and funding level of strategic plans
- Feasibility of the strategic plan
- Steps undertaken to develop strategic plans

#### Coordination and harmonization mechanisms at REC level:

- Governance structures of the REC (Institutional arrangements) and coordination mechanisms in the Livestock and Human Health Sectors, including Regional Veterinary (or Regulatory) Committees and/or regional legislation/regulations/ directives or recommendations.
- Regional Strategic Plan for addressing AHI and other, including zoonoses in the region.
- Relationships of RECs with Member States on modalities for harmonizing veterinary legislation, complying with international standards
- Relationships of the REC with other RECs and any mechanisms for cooperation in and coordination of programs.
- Institutions (public and private) involved in existing coordination mechanisms
- Operation modalities of existing coordination mechanisms (ToR, designation of leading institutions, roles and responsibilities)
- Cross-boundary coordination mechanisms
- Coordination mechanisms between Member Countries and RECs.
- Operation modalities of existing coordination mechanism (ToR, designation of leading institutions, roles and responsibilities)
- If coordination mechanisms not available, steps undertaken to establish integrated coordination mechanism at REC level
- Interaction among wildlife departments/services, veterinary and public health services

#### Capacity development

- Existing capacity for disease control
- Existing or planned capacity development to strengthen coordination mechanisms
- Capacity of RECs to support Member Countries
- Capacity of RECs to administer coordination and harmonization initiatives

#### Inter REC coordination and institutional frameworks

- Coordination mechanisms between RECs.
- Institutional frameworks supporting inter REC coordination and harmonization mechanisms

### **iii. Animal Health**

#### Overview of livestock sector and bio-security measures

- The livestock sector (poultry, swine, and ruminants) and its relative importance in terms of livelihoods, production and trade.
- Marketing and distribution channels and potential role in dissemination of TADs and zoonoses.
- Main features of livestock value chains and its stakeholders
- Bio-security measures along the value chains for different livestock production systems

- Sectoral development policies, strategies and plans
- Regulatory frameworks governing the livestock sector
- Bio-security measures along cross-border marketing, import and export systems
- Capacity of REC to undertake risk analysis independently or in partnership with Member Countries
- Sectoral development policies, strategies and plans
- Wildlife health components in animal health services

#### Migratory birds and wildlife

- Main wild species (potentially involved in TADs or zoonoses), their distribution and habitats,
- Migratory pathways and seasonal movements of wild species involved or potentially involved in zoonoses transmission
- Management of wildlife
- Level of interaction between wildlife species and domestic animals
- Role of wildlife in cross border (within and across RECs) dissemination of zoonoses
- Wildlife contribution to Member States and REC economies

#### Veterinary services, capacity and preparedness

- Risk analysis and interventions in place to monitor and mitigate risks.
- Capacity of veterinary services to undertake disease surveillance, including wildlife, of AHI and other selected ERADs and zoonoses
- Interaction among wildlife, veterinary and public health departments/services
- Surveillance, prevention, early detection, diagnostic capacity, and rapid response including Containment and Control Measures
- Funding and human resources in veterinary services
- Contingency/preparedness plans to address AHI and other selected ERADs and zoonoses
- Disease prevention and control plans and measures
- Disease notification procedures
- Connectivity with an active participation to relevant international platforms, mechanisms and procedures (WAHIS/WAHID<sup>12</sup>)
- Regulatory frameworks governing national animal health / veterinary services
- Veterinary legislation and other regulatory frameworks
- Professional development and training
- Veterinary statutory body
- Role of private sector in animal health service delivery
- Cross border harmonization
- Role of different stakeholders in animal disease prevention and control
- Compensation policies and funds
- Capacities of the REC to support legislative initiatives of Member states Veterinary Services
- Capacity of REC to cooperate and interact in coordination with veterinary services of Member Countries and other RECs
- Intra and inter-REC harmonization and coordination mechanisms
- Mandate of REC for the coordination of animal health related issues
- REC Regulatory frameworks governing animal health delivery services
- Harmonization of veterinary legislation at regional level and compliance with international standards, use of OIE guidelines on veterinary legislation
- Regional epidemio-surveillance networks coordination
- Regional laboratory networks including reference laboratories and accreditation systems coordination
- Regional Animal Disease information sharing and communication mechanisms
- Connectivity of Regional mechanisms with and active participation to relevant international platforms, mechanisms and procedures (WAHIS/WAHID; OFFLU<sup>13</sup> ; GLEWS<sup>14</sup>)
- Regional Contingency/preparedness plans

#### **iv. Human Health**

<sup>12</sup> OIE World Animal Health Information System / Database (WAHIS/WAHID)

<sup>13</sup> Joint OIE-FAO network of expertise on animal influenza (OFFLU)

<sup>14</sup> Global Early Warning System (GLEWS)

## Surveillance

- Surveillance and early warning systems
- Application of WHO IDSR and IHR (2005)
- Laboratory diagnostic capacity
- Outbreak investigation systems and capacity
- Coordination of outbreak investigation with veterinary services
- Contingency plans
- Regional epidemio-surveillance networks
- Regional laboratory networks, including referral and accreditation systems

## Prevention, Containment and Control Measures

- Capacity of health institutions, structures and systems
- Pandemic control and prevention measures
- Public and private sector cooperation
- Drug and vaccine availability
- Capacity of REC to cooperate and interact with public health services of Member Countries and other REC
- Contingency/preparedness plans
- Epidemic and Pandemic preparedness and response plans
- Pandemic prevention and control plans
- Disease information sharing and communication mechanisms

## Health system capacity and preparedness

- Legal and ethical frameworks and coherence with IHR
- Policies and regulatory frameworks for prevention and control measures of pandemics
- Contingency plans
- Intra and inter-REC harmonization and coordination mechanisms
- Mandate of REC in public health related issues
- Regulatory frameworks governing public health services
- Capacity of RECs to support Member Countries in public health delivery systems

## **v. Communication**

### Public awareness campaigns

- Awareness campaigns (target groups, quality of strategies/plans, impact)
- Communication plan for preparedness and response to AHI and other ERADs and zoonoses
- Functionality of communication networks, including the involvement of the NGO sector
- Coordination mechanisms for communication and awareness campaigns

### Technical capacities in communication

- Technical capacities in communication
- Availability of regional capacities to provide technical assistance to national communication systems

### Mass media environment

- Type and coverage of mass media

## **vi. Inventory of Development / International Partners Activities**

- Inventory of past, present and planned external assistance to public health and veterinary services
- Coordination mechanism between development partners and international institutions involved in the prevention and control of AHI and other selected ERADs and zoonoses.
- Coordination mechanism between development partners and regional institutions

## 6 Conduct of the process

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26. **The Sensitization and Planning Phase [Phase I].** Formal initiation of the process will begin with a communication to the Secretaries General (SGs) or Executive Secretaries (ESs) of RECs, informing them that AU-IBAR, in collaboration with the AUC Department of Social Affairs and in partnership with relevant international institutions (OIE, FAO and WHO) intends to launch a new initiative aimed at strengthening the capacity of RECs to facilitate the coordination and harmonization mechanism for the prevention and control of AHI and other ERADs and zoonoses (as identified and prioritized by each REC). The SGs or ESs will be invited to endorse the general approach and identify a liaison person within the Secretariat. The sensitization and planning phase will be completed at a workshop to be organized by AU-IBAR.

27. **The Desk Review Phase (Phase II).** Will begin with the collation and analysis of relevant documents such as country reports (OIE-PVS, PVS Gap Analysis<sup>15</sup>, INAP, M&E reports of SPINAP, NMTP<sup>16</sup>, FAO Country Poultry Sector Review, WHO country appraisal reports and other studies) in order to identify the main constraints hindering effective prevention and control measures of AHI and other ERADs and zoonoses, at country level. For each REC the desk review will analyze country information as well as REC information. The desk review will be followed by the identification of national constraints that could be addressed at REC level. The review phase will be followed by the compilation of country profiles and an interim report providing an overview of the status of different countries belonging to the particular REC and identifying main issues to be addressed at the REC level to strengthen coordination and harmonization mechanisms. The contents of the report will be subjected to a continuous process of validation through dialogue with international partners.

28. **The On-Site Assessment Phase [Phase III].** Technical experts will visit the RECs and conduct further validation and updating of country and REC information gathered in Phase II. This will be followed by a review of coordination and harmonization mechanisms vis-à-vis sectoral strategies, plans and priority activities elaborated by RECs to support the livestock sector. Ongoing and planned initiatives addressing livestock development, animal and public health, control of TADs, ERADs and zoonoses will also be reviewed. At the end of this phase, an interim analytical report will be compiled which will include recommendations on the IRCM.

29. **The Validation Phase [Phase IV].** The interim REC analytical reports will be validated through the following:

- i. Technical Peer Review
- ii. Clearance by international and technical partners
- iii. Review and clearance at REC level

30. **The IRCM Formulation Phase [Phase V].** After the validation of the analytical report, an IRCM will be jointly developed by a team composed of AU-IBAR, FAO, WHO, OIE and REC experts in each REC. The proposed IRCM will aim at strengthening or establishing institutionalized coordination and harmonization mechanisms required for effective support to Member Countries for preparedness, prevention, early detection and rapid response, and linkages between RECs through resource mobilization, capacity building and legislative review and alignment. It will be anchored on existing institutional and regulatory frameworks governing coordination, financing and harmonization goals of RECs. A costed plan to implement the IRCM will also be developed for an initial period of three years.

31. **The Adoption Phase [Phase VI].** The draft IRCM and its implementation plan will be presented to RECs' governance structures for review and adoption.

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<sup>15</sup> When available for Donors and Partners

<sup>16</sup> National Medium Term Program

## 7 Products of the process

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32. For each REC, the following documents will be compiled:
- A synthesis of the information from the Desk Review of countries
  - A synthesis of the information from the Desk Review and on-site assessment of the REC
  - A REC analytical Report with recommendations on the nature, structure, modalities, roles of stakeholders and expected outcomes of the IRCM.
  - A proposed IRCM
  - A costed implementation plan for the proposed IRCM.

## Annex 2. Tables and Figures

**Table 11: Livestock production data of IGAD Member States, 2008**

Country	Camels (1000)	Cattle (1000)	Sheep (1000)	Goats (1000)	Pigs (1000)	Poultry (million)
Djibouti	69	297	466	512	Na	Na
Eritrea	76	1960	2120	1720	Na	1.38
Ethiopia	2400	49297.9	25017.22	21884.222	29	35
Kenya	1132.5	13522.5	9907.3	14478.3	330	29.615
Somalia	7000	5350	13100	12700	4.2	3.4
Sudan	4400	41400	51100	43100	Na	35
Uganda	na	7398	1748	8523	2186	27.508
<b>Total</b>	<b>15077.5</b>	<b>119225.4</b>	<b>103458.5</b>	<b>102917.5</b>	<b>2549.2</b>	<b>131.903</b>

Source: FAO STAT accessed July 2010.

**Table 12: Food Supply from Livestock in the IGAD region, 2008**

Country	Beef (MT)	Camel meat MT	Chicken meat (MT)	Cow Milk whole (LT)	Goat Meat (MT)	Hen Eggs (MT)	Pig Meat (MT)	Sheep Meat (MT)
Djibouti	6050	660	na	8050	2350	Na	Na	2184
Eritrea	16650	732	2150	39200	5800	2000	Na	5600
Ethiopia	380000	17000	46240	1350000	64600	37500	1665	81500
Kenya	365000	27000	24000	3990000	45100	69000	17225	33600
Somalia	66000	44200	3624	435000	42250	2540	125	48100
Sudan	340000	45000	27000	5309003	186000	47000	Na	148000
Uganda	106000	Na	37700	735000	29000	21000	60000	5800
<b>Total</b>	<b>1,279,700</b>	<b>134,592</b>	<b>140,714</b>	<b>11,866,253</b>	<b>375,100</b>	<b>179,040</b>	<b>79,015</b>	<b>324,784</b>

Source: FAO STAT website accessed July 2010

**Table 13: Livestock imports (Heads), milk (tonnes) and import value (US\$) in the IGAD, 2007.**

Country	Cattle	Goats	Pigs	Sheep	Chickens (1000)	Milk – whole fresh, skimmed dry, whole dry (Tonnes)*	Total Import value excluding milk US \$ (1000)	Total Import value including milk US \$ (1000)
Djibouti	Na	na	na	Na	13	na	17	15248
Eritrea	Na	na	na	Na	Na	na	na	7
Ethiopia	Na	240	na	Na	94	na	259	5750
Kenya	158	1550	12	6	92	na	414	4629
Somalia	Na	na	na	Na	Na	na	na	3798
Sudan	9354	4	na	8	3126	na	11795	109704
Uganda	31	318	2	Na	552	na	758	5787
<b>Total</b>	<b>9543</b>	<b>2112</b>	<b>14</b>	<b>14</b>	<b>3877</b>	na	<b>13,243</b>	<b>144923</b>

Source: FAOSTAT website accessed June 2010; na – data not available

\*The FAOSTAT data base could only indicate the import value without the quantity

**Table 14: Livestock Exports (Heads), milk (tonnes) and Export value (US\$) in the IGAD, 2007.**

Country	Cattle	Goats	Pigs	Sheep	Chickens	Camels	Milk – whole fresh, skimmed dry, whole dry (Tonnes)	Total Export value US \$ (1000)
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Djibouti	32924	na	na	Na	na	54437	463	33581
Eritrea	na	9078	na	2042	na	na	47	137
Ethiopia	38410	22982	na	13863	na	na	16060	31663
Kenya	16	158	na	Na	1516	na	2	771
Somalia	110000	1200000	na	500000	na	467	0	71514
Sudan	2717	120000	na	719890	na	49539	606	80442
Uganda	3418	2279	566	Na	121	na	463	1692
<b>Total</b>	<b>187485</b>	<b>1354497</b>	<b>566</b>	<b>1235795</b>	<b>1637</b>	<b>104443</b>	<b>17178</b>	<b>219,800</b>

Source: FAO STAT website accessed March 2010; na – data not available

**Table 15: Situation of CBPP in IGAD Member States**

Year	2006		2007		2008	
Country	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases
Eritrea	-	-	2	14	-	-
Ethiopia	-	-	19	269	104	15,985
Djibouti	-	-	-	-	-	-
Kenya	-	-	25	140	1	1
Sudan	1	-	-	-	-	-
Uganda	6	-	7	646	7	23,087
<b>Totals</b>	<b>7</b>	<b>-</b>	<b>53</b>	<b>1,069</b>	<b>112</b>	<b>39,073</b>

**Table 16: Situation of FMD in IGAD Member States**

Year	2006		2007		2008	
Country	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases
Eritrea	1	-	10	1295	13	274
Ethiopia	-	-	26	1716	56	2405
Djibouti	-	-	-	-	-	-
Kenya	-	-	140	495	2	2
Sudan	-	-	3	24	11	272
Uganda	5	-	4	177	-	-
<b>Totals</b>	<b>6</b>	<b>-</b>	<b>183</b>	<b>3707</b>	<b>82</b>	<b>2953</b>

**Table 17: Situation of Newcastle Disease in IGAD Member States**

Year	2006		2007		2008	
Country	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases
Eritrea	1	425	1	39	2	1110
Ethiopia	-	-	16	756	139	24814
Djibouti	-	-	-	-	-	-
Kenya	54	-	15	286	4	308
Sudan	-	-	-	-	2	1000
Uganda	8	-	10	79934	9	22996
<b>Totals</b>	<b>63</b>	<b>425</b>	<b>42</b>	<b>81015</b>	<b>156</b>	<b>50228</b>

**Table 18: Situation of Rabies in IGAD Member States**

Year	2006		2007		2008	
Country	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases	No. Outbreaks	No. Cases
Eritrea	1	2	3	15	5	6
Ethiopia	-	-	-	-	115	365
Djibouti	-	-	-	-	-	-

Kenya	24	24	42	130	57	3
Sudan			25	8	2	35
Uganda	8	54	6	91	7	254
<b>Totals</b>	<b>33</b>	<b>80</b>	<b>76</b>	<b>244</b>	<b>186</b>	<b>663</b>

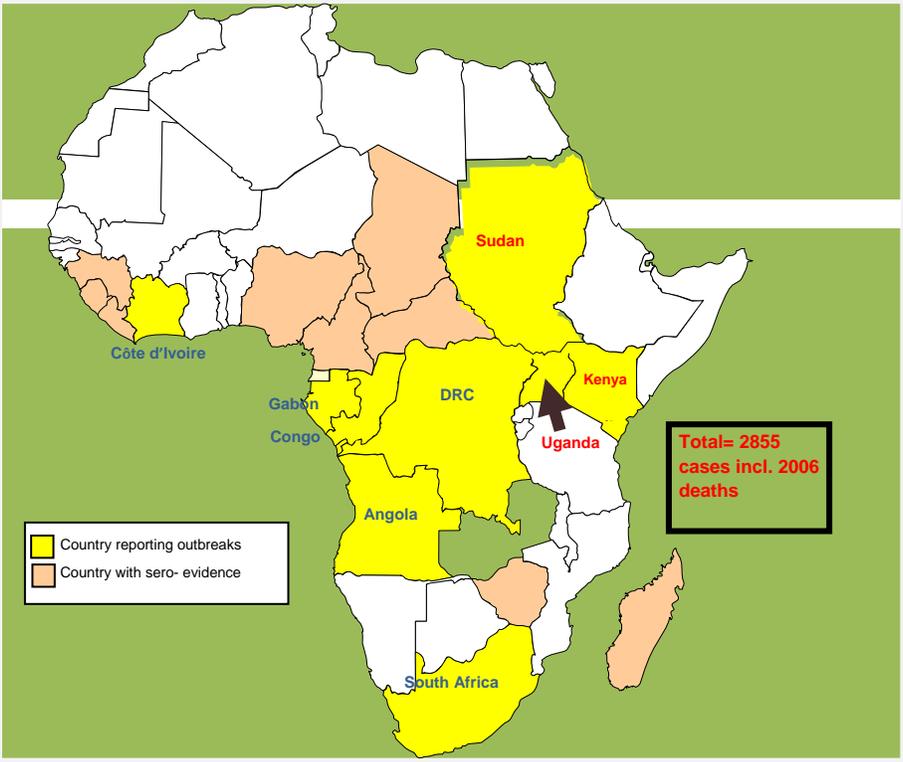
**Table 19: Distribution of viral hemorrhagic fever outbreaks caused by Ebola viruses, 1976-2007.**

Epidemic	Year	Country	Cases	Deaths	CFR (%)
<b>EBOLA</b>	1976	Sudan	284	151	53
		DRC	318	280	88
	1977	DRC	1	1	100
	1979	Sudan	34	22	65
	1994	Gabon	52	31	60
		Cote d'Ivoire	1	0	0
	1995	Liberia	1	0	0
				315	250
	1996	Gabon	97	66	68
		South Africa	1	1	100
	2000-2001	Uganda	425	224	53
	2001-2002	Gabon	65	53	82
		Congo	59	44	75
	2002-2003	Congo	178	157	88
	2004	Sudan	37	12	32
	2005	Congo	12	10	83
	2007	DRC	264	187	71
Uganda		149	37	24	
<b>Total</b>			<b>2293</b>	<b>1536</b>	<b>67</b>

**Table 20: Distribution of viral hemorrhagic fever outbreaks caused by Marburg viruses, 1976-2007.**

Epidemic	Year	Country	Cases	Deaths	CFR (%)
<b>Marburg virus</b>	1975	South Africa	3	1	33
	1980	Kenya	2	1	50
	1987	Kenya	1	1	100
	1998-2000		154	128	83
	2004-2005	Angola	164	150	91
	2007	Uganda	3	1	33
	<b>Total</b>			<b>358</b>	<b>282</b>
<b>LUJO -New arena virus</b>	2008	Zambia & South Africa	5	4	80

Figure 3: Report of Haemorrhagic Fever cases



### Annex 3: List of figures and tables

Figure 1: Organizational structure of IGAD Secretariat .....	12
Figure 2: IHR implementation timetable .....	31
Figure 3: Report of Haemorrhagic Fever cases .....	60
Table 1: Socio-economic data of IGAD Member States .....	11
Table 2: Protected areas and biodiversity distribution in the IGAD countries .....	16
Table 3: Examples of diseases that are transmitted at the wildlife livestock interface affecting humans.....	18
Table 4: The role of wildlife in the epidemiology of common diseases in Africa .....	19
Table 5: Capacities of IGAD MS wildlife veterinary services .....	20
Table 6: Human, physical and financial resources .....	24
Table 7: Technical authority and capability .....	26
Table 8: Interaction with stakeholders .....	27
Table 9: Access to markets.....	28
Table 10: Priority Regional Intervention for Livestock.....	39
Table 11: Livestock production data of IGAD Member States, 2008 .....	57
Table 12: Food Supply from Livestock in the IGAD region, 2008 .....	57
Table 13: Livestock imports (Heads), milk (tonnes) and import value (US\$) in the IGAD, 2007.....	57
Table 14: Livestock Exports (Heads), milk (tonnes) and Export value (US\$) in the IGAD, 2007.....	57
Table 15: Situation of CBPP in IGAD Member States.....	58
Table 16: Situation of FMD in IGAD Member States .....	58
Table 17: Situation of Newcastle Disease in IGAD Member States.....	58
Table 18: Situation of Rabies in IGAD Member States.....	58
Table 19: Distribution of viral hemorrhagic fever outbreaks caused by Ebola viruses, 1976-2007.....	59
Table 20: Distribution of viral hemorrhagic fever outbreaks caused by Marburg viruses, 1976-2007.....	59

## Annex 4. Consulted Documents

- Agreement establishing the Inter-Governmental Authority on development (IGAD), 1996
- IGAD News, n. 39, March-April 2010
- OIE Analysis of the OIE PVS reports of IGAD Countries, 2010
- IGAD Annual report 2008
- IGAD WORKSHOP REPORT ON THE AVIAN INFLUENZA HAZARD DJIBOUTI, REPUBLIC OF DJIBOUTI 21-22 DECEMBER 2005
- Declaration of the Fifth IGAD Ministerial Committee Meeting on Health and HIV and AIDS, December 2010
- Knowledge about Avian Influenza and Practice among People Involved with Poultry Production, in River Nile, Khartoum, Gezira, White Nile and Central Equatoria States :A KAP Survey Report, September 2006
- 2009 IGAD Annual Report
- IGAD Strategy 2003
- INAP Sudan, 2007
- REGIONAL POLICY FRAMEWORK ON ANIMAL HEALTH IN THE CONTEXT OF TRADE AND VULNERABILITY OF THE MEMBER STATES OF IGAD, December 2009
- Issues Emerging from the IGAD LPI National Stakeholder Consultative Fora: Djibouti, Ethiopia, Kenya, Sudan and Uganda
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