SADC Report

Findings of the stock-taking exercise in the Southern Africa Development Community

INTEGRATED REGIONAL COORDINATION MECHANISM

IRCM

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

March 2011
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Acknowledgments

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Prof. Ahmed A. A. Elsawalhy, Director/Head of Mission
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Recommended citation

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<tr>
<th>Acronym</th>
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<tr>
<td>AEC</td>
<td>African Economic Community</td>
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<td>Avian Influenza</td>
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<td>AHI</td>
<td>Animal (Avian) and Human Influenza</td>
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<td>ALive</td>
<td>ALive Platform, Partnership for Livestock Development, Poverty Alleviation &amp; Sustainable Growth in Africa</td>
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<td>Animal Resources Information System</td>
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<td>African Swine Fever</td>
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<td>African Union</td>
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<td>AU-IBAR</td>
<td>Africa Union Inter-African Bureau for Animal Resources</td>
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<tr>
<td>BSE</td>
<td>Bovine Spongiform Encephalopathy</td>
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<td>CBPP</td>
<td>Contagious Bovine Pleuro-Pneumonia</td>
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<td>CSF</td>
<td>Classical Swine Fever</td>
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<tr>
<td>CVO</td>
<td>Chief Veterinary Officer</td>
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<td>DPSA</td>
<td>Direction de la Production et de la Santé Animales (DRC)</td>
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<td>DPT</td>
<td>Digital Pen Technology</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>European Commission</td>
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<td>ECOSOCC</td>
<td>Economic, Social and Cultural Council of the African Union</td>
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<td>EPP</td>
<td>Emergency Preparedness Plan</td>
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<td>EID</td>
<td>Emerging Infectious Diseases</td>
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<td>ERAD</td>
<td>Emerging and Re-emerging Animal Diseases</td>
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<td>EU</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FANR</td>
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<td>FMD</td>
<td>Foot and Mouth Disease</td>
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<td>FTA</td>
<td>Free Trade Area (SADC)</td>
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<td>GF-TAD</td>
<td>Global Framework for the progressive control of Trans-boundary Animal Diseases (FAO &amp; OIE)</td>
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<td>GLEWS</td>
<td>FAO, OIE &amp; WHO - Global Early Warning and Response System for Trans-boundary animal Diseases including Zoonoses</td>
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<tr>
<td>HPAI</td>
<td>Highly Pathogenic Avian Influenza</td>
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<td>IDSIR</td>
<td>Integrated Disease Surveillance and Response</td>
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<td>IHR</td>
<td>International Health Regulations</td>
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<td>International Livestock Research Institute</td>
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<td>Integrated National Action Program</td>
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<td>IRCM</td>
<td>Integrated Regional Coordination Mechanism</td>
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<td>International Standard Setting Body</td>
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<td>International Union for Conservation of Nature</td>
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<td>Joint Task Force</td>
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<td>Joint Technical Committee (SADC)</td>
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<td>LDU</td>
<td>Livestock Development Unit</td>
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<td>LIMS</td>
<td>Livestock Information Management System</td>
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<td>LSD</td>
<td>Lumpy Skin Disease</td>
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<td>LTC</td>
<td>Livestock Technical Committee</td>
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<td>Non-Governmental Organizations</td>
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<td>ND</td>
<td>Newcastle Disease</td>
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<td>NICID</td>
<td>National Institute for Communicable Diseases (South Africa)</td>
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<td>NMTP</td>
<td>National Medium Term Priority Plan</td>
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<td>OCHA</td>
<td>Office for the Coordination of Humanitarian Assistance</td>
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<td>OFFLU</td>
<td>Joint OIE-FAO global network of expertise on animal influenzas</td>
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<td>OIE</td>
<td>World Organization for Animal Health</td>
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<td>OVI</td>
<td>Onderstepoort Veterinary Institute (South Africa)</td>
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<td>OWOH</td>
<td>One World One Health</td>
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<td>PIC</td>
<td>Pandemic Influenza Contingency</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>PPE</td>
<td>Personal Protection Equipment</td>
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<td>Peste des Petits Ruminants</td>
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<td>PVS</td>
<td>Performance of Veterinary Services</td>
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<td>QA</td>
<td>Quality-Assurance</td>
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<td>RAHC</td>
<td>Regional Animal Health Centre</td>
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<td>Regional Economic Community</td>
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<td>RISDP</td>
<td>Regional Indicative Strategic Development Plan</td>
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<td>RVF</td>
<td>Rift Valley Fever</td>
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<td>SACAU</td>
<td>Southern African Confederation of Agricultural Unions</td>
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<td>SACCT</td>
<td>Southern African Commission for the Control of TADs</td>
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<td>SEARG</td>
<td>Southern and Eastern Africa Rabies Group</td>
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<td>SADC FMD Project</td>
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<td>SG</td>
<td>Secretary General</td>
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<td>SOPs</td>
<td>Standard Operating Procedures</td>
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<td>SPS</td>
<td>Sanitary and Phyto-Sanitary Agreement (WTO)</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>STCs</td>
<td>Specialized Technical Committees</td>
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<td>TA</td>
<td>Technical Assistance</td>
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<td>TADs</td>
<td>Trans-boundary Animal Diseases</td>
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<td>TCP</td>
<td>Technical Cooperation Project (FAO)</td>
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<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<td>UNISIC</td>
<td>UN System Influenza Coordinator</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>VCF</td>
<td>Veterinary Cordon Fence (Namibia)</td>
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<td>VS</td>
<td>Veterinary Services</td>
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<td>VSB</td>
<td>Veterinary Statutory Body</td>
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<td>WAHIS</td>
<td>World Animal Health Information System</td>
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<td>WAHID</td>
<td>World Animal Health Information Database</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Executive Summary

The IRCM stocktaking and analysis mission to SADC was undertaken from 19-31 March 2010 with a stakeholder consultative workshop held from 23-24 April 2010. Following literature review, interviews with key personnel at the SADC Secretariat, collaborating institutions, cooperating partners and feedback from the consultative workshop held, the following are the main findings conclusions and recommendations of the stock taking exercise.

SADC is an organization with its Headquarters in Gaborone, Botswana, comprising 15 Member States: Republics of Angola, Botswana, Democratic Republic of Congo, the Kingdom of Lesotho, the Republics of Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, the Kingdom of Swaziland, the United Republic of Tanzania, the Republic of Zambia, and the Republic of Zimbabwe.

The SADC 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 is achieving the MDGs (poverty reduction, education, health, gender equality, child mortality, etc). For example, the HDI ranges widely from 0.4 (very low) to 0.8 (close to some developed countries). This disparity is a testimony of the challenges facing the SADC to achieve effective integration. However, the existence of the SADC's structure and the determination of its governance body for over three decades to achieve development and prosperity for its citizens are encouraging assurances that SADC could play a very important role in advancing the economic development in the region through collaboration and integration.

The main objectives of SADC, among others, are: to promote sustainable and equitable economic growth and socio-economic development, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa through regional integration, achieve complementarities between national and regional strategies and programs, and combat HIV/AIDS or other deadly and communicable diseases. SADC objectives are to be achieved through increased regional integration, built on democratic principles and equitable and sustainable development.

In March 2001 SADC Heads of States and Governments approved the restructuring of SADC institutions, comprising the grouping of 21 sectors into clusters under four Directorates at the Secretariat and the establishment of SADC National Committees (SNC). The development of a Regional Indicative Strategic Development Plan (RISDP) was also initiated with the aim to complement the restructuring and to provide a clear direction for SADC policies and programs over a long term period (15 years). The RISDP was adopted in 2003 as the main instrument for achieving regional economic integration. In this context, SADC aimed to establish a Free Trade Area (FTA) by the year 2008, a Customs Union by 2010, a Common Market by 2015, a Monetary Union by 2016, and a regional Central Bank with a common currency by 2018. The SADC FTA has been established as scheduled, but other targets are behind.

The following sectoral priority interventions were adopted within the context of RISDP:

- Trade/economic liberalization and development;
- Infrastructure support for regional integration and poverty eradication;
- Sustainable food security;
- Human and social development.

The RISDP component addressing cooperation in sustainable food security is aiming at achieving lasting access to safe and adequate food at all times by all people in SADC for an active and healthy life. The focus is on improving availability, access and nutritional value of food, while minimizing food losses; improving forecasting, prevention, mitigation and recovery from adverse effects of natural disasters; and improving the institutional framework.

Under the food availability area, it is foreseen under the livestock component to reduce the incidence of TADs and in particular Foot and Mouth Diseases (FMD) by half by 2015 with the ultimate objective of elimination, increase livestock production by at least 4% annually, and achieve adherence to SPS measures and standards in line with WTO agreements.

Coordination of TADs and zoonoses falls under the Livestock Development Unit (LDU) of SADC Secretariat which is under the Food Agriculture and Natural Resources (FANR) Directorate. The LDU serves as a secretariat for the SADC Livestock Technical Committee (LTC) and its sub-committees and these committees operate under defined terms of reference approved by the SADC Council of Ministers. The operations of the unit are supported by various livestock
projects that address identified priorities and decentralised networks that are chaired by selected Member States on behalf of the region.

Four decentralized networks were established in 1997 under the LTC and hosted by SADC. These are the laboratory, epidemiology, veterinary public health and animal production and veldt networks or subcommittees. Over the years there has been an erosion of capacity at the LDU and as a result the LTC has recommended the establishment of the Southern African Commission for the Control of Transboundary Animal Diseases (SACCT) within the SADC Secretariat to revamp the coordination functions. Meetings of the LTC and its subcommittees are funded by MS while the Secretariat fund costs of meeting place and secretarial services.

SADC has an established health program that falls within the Directorate of Human and Social Development of the SADC Secretariat. Within the Health sector, MS have established the following institutional mechanisms as necessary instrument for the effective implementation of the Health Protocol which was passed by SADC Council of Ministers in 1999 and ratified in 2000:

- Health Sector Committee of Ministers comprises the Ministers responsible for health issues in MS and provides guidance and coordination of policies, programmes and projects in the health sector;
- The Health Sector Committee of Senior Officials comprises Permanent Secretaries and maintains contacts with the health sector coordinator at the SADC secretariat;
- The Health Sector Co-ordinating Unit which is headed by a director assisted by qualified and well experienced personnel in their relevant fields;
- Technical Sub-Committees which are established to assist in the technical work of the health sector.

The implementation of the protocol is reinforced by two instruments: the implementation plan with specific clearly defined strategies, and performance indicators, and the pharmaceutical business plan.

A protocol of cooperation for the preparedness and response to epidemics was also signed in 1998 by all SADC MS; however the status of implementation is not known.

Data on zoonotic diseases are not available at SADC Secretariat level. However, Ministers of health have agreed to impress upon all MS to report promptly to both WHO and SADC Secretariat, and to ensure that a database on priority diseases (including emerging diseases and trans-boundary) is established. Nevertheless, it is not clear how the flow of information will be channelled and how feedback will be provided. The SADC MS are at different stages of implementing the International Health Regulations (IHR), 2005 and most countries are lagging behind in its requirements.

SADC has already established coordination mechanisms for livestock, public health and wildlife sectors. This provides an opportunity for the implementation of an integrated regional coordination mechanism for TADs and Zoonoses, also building on the experiences of Joint Technical Committee on Avian Influenza that was rapidly constituted to coordinate the region’s preparedness plans and actions. There is, however, a concern that a more sustained collaborative mechanism for general TADs and Zoonoses surveillance, embracing all the above mentioned sectors, is urgently needed. However, the Region seems to be in favour of implementing the coordination process at the country levels where the stage has already been set by the national integrated committees on avian influenza which already exist in all the SADC MS and are being coordinated by national disaster committees housed in the highest office in each MS.

SADC has developed a regional strategy for the control of TADs, under which diseases have been categorized according to their perceived importance, namely:

- Strategic: for progressive elimination- FMD, CBPP
- Tactical: for intervention when the level becomes unacceptable- ASF, RVF, ND, LSD, Rabies
- Emerging/Exotic to SADC: Rinderpest, PPR, BSE and AI

Member States are expected to report all animal diseases on a monthly basis to the SADC Secretariat through a Livestock Information Management System (LIMS) and this helps in the publication of the SADC Animal Health Yearbook. Although the major animal diseases remain a challenge to the region, there have not been reports of cases of the Highly Pathogenic Avian Influenza (HPAI) in any SADC MS. Moreover, by adequately applying OIE international standards, recommendations and guidelines, the SADC region has managed to create a favourable animal health environment which allows some countries to export to lucrative and competitive international markets. The establishment of SACCT is expected to further enhance the region’s capacity to manage TADs and zoonoses.
Livestock contributes significantly to the social and economic wealth of the people in the SADC region. Over 60% of the region’s total land area is suitable for livestock farming. The regional farm animal resources are very diverse including but not limited to cattle, chickens, ducks, goats, sheep, pigs, equines (horses and donkeys), turkeys and ostriches. Livestock contributes between 20-40% of the total Agricultural GDP in the SADC region, which is significantly below the potential. Considering the existing potential for livestock and wildlife production in the countries of the region, it is clear that the contribution to the GDP is very low.

Most of the livestock industry is based on smallholder farming characterised by low productivity, vulnerability and poor competitiveness. The population of livestock in the SADC was estimated in 2007 at 61.6 million heads of cattle, 37.3 million sheep, 44.3 million goats, 11 million pigs and 232.2 million poultry.

In 2007 the region imported 91,020 heads of cattle, 610,752 sheep, 164,659 goats, 2550 pigs and 13.2 million chickens together valued at over US$ 103 million. During the same period, live animal export from the region was 69,793 heads of cattle, 132,546 Goats, 279 Pigs, 661,571 Sheep and 2,248 Chickens valued at US$ 68.3 million. The region is a net importer of livestock and livestock products although most of the import and export mentioned above are intra-regional. It can be postulated therefore that with a region being a net importer of livestock and livestock products, there is a very high possibility of incursion of various TADs and zoonoses from outside the region.

Most biodiversity issues and values in SADC transcend national boundaries since several wildlife species exhibit trans-boundary migration patterns. The region therefore promotes trans-boundary management of wildlife as well as other natural resources, particularly water. Serious environmental challenges in the region are leading to the loss of its rich biological heritage and ecological processes. Key among these challenges is the loss, fragmentation or degradation of habitats due to human interventions. In addition, there is an increasing conflict between human and wildlife, especially associated with the raising population of elephants in more and more fragmented habitats. In recognition of the transboundary nature of wildlife resources in the region, a regional Protocol on Wildlife Conservation and Law Enforcement was adopted which harmonises monitoring and utilisation of wildlife resources.

The concept of creating trans-frontier conservation areas (TFCAs) is recognised in the region as an important tool in promoting the conservation of biodiversity and endangered ecosystems. SADC MS have identified 20 existing and potential ecosystems that cut across major biomes and eco-regions, covering 470,000 km² – almost 50% of the combined size of formally Protected Areas of the entire SADC region. Of these, eleven have already received a mandate from participating countries and the remaining are at various stages of development. It has been established that the development of TFCAs can contribute to the welfare and improvement in the standards of living of rural communities through diversified livelihood opportunities from tourism and tourism related products in addition to marketing of animal products. These TFCAs, however, are likely to expand the interface and intensify interactions between livestock, wildlife and human. This poses a serious challenge to the livestock sector in regard to the control of trans-boundary animal diseases, such as FMD, and their effects on international trade.

So far, the management of FMD risk in the SADC has largely relied on fencing and intensive management of wildlife and livestock in separate, smaller and isolated patches of land. Very different approaches and techniques may, therefore, be required to deal with animal health issues in larger landscapes, and the more open, integrated land use systems likely to develop in TFCAs. Also, greater inter-sectoral collaboration between the livestock and wildlife sectors in planning and management of TFCAs is necessary. In particular, greater understanding of disease dynamics at the wildlife livestock interface will be needed.

In general, the capacity of wildlife health services is weak in most SADC countries. However, the following countries have established wildlife veterinary units: South Africa, Zimbabwe, Botswana, Namibia, Zambia, DRC and Tanzania. The recent appointment of OIE wildlife focal persons at country level is intended to improve wildlife diseases reporting and this will provide an important link in TADs and zoonoses management.

The status of Veterinary services (VS) is based on a number of PVS reports of evaluation missions conducted between 2007 and 2009. From the SADC MS, only Angola, Seychelles and South Africa have not yet requested a PVS assessment as of July 2010. All reports have been cleared for dissemination amongst technical cooperation partners and donors. The report from the PVS mission in Zimbabwe has not yet been validated and the PVS mission for Botswana was completed in early May 2010. None of the SADC MS have benefited from PVS follow-up missions yet, which are usually organized a few years after the initial assessment. On the other hand, several countries, amongst which Madagascar, Mozambique and Zambia have already benefited from a PVS Gap Analysis mission, but none of the reports are available for dissemination.
PVS assessments in the SADC region often identified the same constraints to veterinary services. The most prominent of all is the absence of clear chains of command between the Chief Veterinary Officer and the field staff, often lost during institutional reforms favouring decentralization of powers to local authorities.

Outdated and/or inadequate legislation is often perceived as a constraint to effective law enforcement, especially in areas such as food safety, residue control and the use of veterinary drugs. It also contributes to an erosion of the veterinary profession, with more and more tasks being handed over (or taken over) by less qualified individuals. Furthermore, in most situations, there is no farmer’s compensation plan that is backed by the adequate legislation needed for it to become operational.

Another serious impediment to the development of veterinary services, especially the public veterinary services, is shortage of qualified manpower. Overall, very few SADC Member States achieve high levels (3-4) on most PVS competencies.

Veterinary services from SADC MS participate in regional and global networks. However, only about half of the SADC countries participate actively in the various professional, technical, information systems, and standard-setting networks as OIE, WTO-SPS, Codex, WAHIS-WAHID, OFFLU and GLEWS. For example SADC countries mostly involved in the international trade in terrestrial animals and products are Botswana, Namibia, South Africa and Swaziland. On the other hand, Mozambique, Madagascar, Mauritius and Tanzania participate in meetings dealing with aquatic animal products.

The SADC region enjoys the continued support and presence of technical agencies in human and animal health (OIE, FAO, WHO, AU-IBAR). For example, the Regional Animal Health Centre (RAHC) in Gaborone, Botswana, provides a coordination and harmonisation opportunity to several partners such as FAO, OIE and AU-IBAR. The region also attracts a very large number of NGOs who share their experience and knowledge widely with the farmers and the producer organisations in the MS. The Region also enjoys very good collaboration and partnership with the traditional and the emerging international donor community.

Overall the development of communication strategies vary from one country to another and embrace varied philosophies and approaches that range from the simplified sensitisation, to the more complex approach that integrates communication with information sharing and education (IEC). All SADC MS have integrated elements of communication in their national preparedness plans for HPAI and 62% of their veterinary services have an information/communication department.

The regional HPAI preparedness and response plan (PRP) in which communication was designated as one of its four pillars (in addition to policy, compensation and human health) was adopted by SADC in August 2006. This important arrangement provided the MS the opportunity to build the communication strategies/plans of the PRP in the national strategies for the prevention and control of TADs, and lead SADC’s Corporate Communications Unit (CCU) to consider HPAI as one of the major focus issues. However, the involvement of CCU in the HPAI related activities was only limited to public information aspects. With assistance from FAO, LDU is in process of formulating a regional communication strategy which would cover not only avian influenza but also other animal and human diseases. The strategy would also help build capacity to rapidly identify disease outbreaks and “behaviour change communication”, including risk communication.

In conclusion SADC has established independent coordination mechanisms for livestock, public health and wildlife sectors with a long history dating as far back as the 1980s. The regional sectoral coordination mechanisms are facilitated by approved Protocols (Public Health and Wildlife) and Declarations (Agriculture) that set the guidelines and obligations of each Member State. The absence of a specific protocol governing the Agriculture/Livestock sector(s) is considered as a limiting factor for the enforcement of Community decisions on animal health related issues. The absence of formal inter-sectoral collaboration is as weakness which also needs to be addressed. Overall, sectoral coordination in SADC region is well established and functioning satisfactorily. However, there is need to embrace inter-sectoral collaboration, revamp capacities in the Secretariat, develop integrated disease surveillance, strengthen wildlife health services, and establish public health information system at regional level, similar to LIMS.

On the basis of the review, several recommendations were formulated towards the establishment of a possible integrated coordination mechanism at regional level.
PART I: INTRODUCTION AND OVERVIEW

1. Introduction

1.1 Background

Trans-boundary animal diseases (TADs) and zoonoses, including emerging infectious 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) are shared with animals and are 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 boarders and ecosystems, amplified interaction between domestic and wild animals, and the increased commercialization and consumption of bush meat. 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 contributing 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 in which to anchor regional coordination mechanisms specifically targeting the prevention and control of AHI, TADs and other zoonoses. Such mechanisms can greatly enhance the capacities of Member States 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 strength the capacity of RECs
to coordinate and harmonize disease preparedness, prevention and control measures implemented by Member States through capacity building, promotion of inter-sectoral collaboration 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, sheep, 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 wildlife 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’s Inter-African Bureau for Animal Resources (AU-IBAR) organized two technical meetings 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, WCSS, 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 analytical report is the product of the SADC review exercise.

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1Addis Ababa meeting on 18-21 August 2009 and Naivasha meetings on 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 SADC

1.1 The main socio economic indicators of SADC Member States

The SADC Member States (MS) are diverse and have different resources, opportunities and problems in as much as they have commonalities. As shown in Table 1, Member States vary in land resources, economic parameters (e.g. agricultural GDP, overall GDP), and population density and in the extent by which each is achieving the MDGs (poverty reduction, education, health, gender equality, child mortality, etc). For example, the HDI ranges widely from 0.4 (very low) to 0.8 (close to some developed countries). This disparity is a testimony of the challenges facing the SADC to achieve effective integration. However, the existence of the SADC’s structure and the determination of its governance body for two decades to achieve development and prosperity for its citizens are encouraging assurances that SADC could play a very important role in advancing the economic development in the region through collaboration and integration.

Table 1: Socio-economic data of SADC Member States

<table>
<thead>
<tr>
<th>Country</th>
<th>Surface¹ (Km²)</th>
<th>Population¹ (1,000)</th>
<th>HDI² (2007)</th>
<th>GDP¹ (Million US$)</th>
<th>GDP per capita¹ (US$)</th>
<th>Agric. GDP¹ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>1,246,700</td>
<td>17,499.4</td>
<td>0.564</td>
<td>119,370</td>
<td>6,821</td>
<td>9.0</td>
</tr>
<tr>
<td>Botswana</td>
<td>581,730</td>
<td>1,905.5</td>
<td>0.694</td>
<td>11,522</td>
<td>6,047</td>
<td>2.2</td>
</tr>
<tr>
<td>DR Congo</td>
<td>2,345,409</td>
<td>64,703.6</td>
<td>0.389</td>
<td>12,541</td>
<td>194</td>
<td>25.6</td>
</tr>
<tr>
<td>Lesotho</td>
<td>30,355</td>
<td>2,020.1</td>
<td>0.514</td>
<td>1,323</td>
<td>655</td>
<td>7.1</td>
</tr>
<tr>
<td>(Madagascar)</td>
<td>587,041</td>
<td>20,215.2</td>
<td>0.543</td>
<td>8,198</td>
<td>406</td>
<td>25.0</td>
</tr>
<tr>
<td>Malawi</td>
<td>118,484</td>
<td>14,288.4</td>
<td>0.493</td>
<td>3,052</td>
<td>212</td>
<td>36.3</td>
</tr>
<tr>
<td>Mauritius</td>
<td>2,040</td>
<td>1,271.5</td>
<td>0.804</td>
<td>9,180</td>
<td>7,219</td>
<td>4.8</td>
</tr>
<tr>
<td>Mozambique</td>
<td>801,590</td>
<td>21,812.6</td>
<td>0.402</td>
<td>14,456</td>
<td>663</td>
<td>28.4</td>
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<tr>
<td>Namibia</td>
<td>824,292</td>
<td>2,102.1</td>
<td>0.686</td>
<td>8,159</td>
<td>3,881</td>
<td>10.3</td>
</tr>
<tr>
<td>Seychelles</td>
<td>455</td>
<td>87.0</td>
<td>0.845</td>
<td>842</td>
<td>9,675</td>
<td>2.5</td>
</tr>
<tr>
<td>South Africa</td>
<td>1,221,040</td>
<td>48,832.1</td>
<td>0.683</td>
<td>259,452</td>
<td>5,313</td>
<td>3.2</td>
</tr>
<tr>
<td>Swaziland</td>
<td>17,364</td>
<td>1,148.3</td>
<td>0.572</td>
<td>2,584</td>
<td>2,251</td>
<td>7.3</td>
</tr>
<tr>
<td>Tanzania</td>
<td>945,090</td>
<td>41,463.9</td>
<td>0.530</td>
<td>18,346</td>
<td>442</td>
<td>30.0</td>
</tr>
<tr>
<td>Zambia</td>
<td>752,618</td>
<td>12,154.1</td>
<td>0.481</td>
<td>14,320</td>
<td>1,176</td>
<td>21.3</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>390,760</td>
<td>13,481.2</td>
<td>n.a.</td>
<td>n.a.</td>
<td>339</td>
<td>n.a.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,864,968</strong></td>
<td><strong>117,166.6</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


1.2 Structure and Governance

The Southern Africa Development Community (SADC) is an organisation with its headquarters in Gaborone, Botswana, comprising 15 Member States².

The concept of a regional economic co-operation in Southern Africa was first discussed at a meeting of the frontline States foreign ministers in May 1979 in Gaborone. The meeting lead to the Lusaka Summit held in April 1980 during which a declaration was adopted and become known as ‘Southern Africa: Towards Economic Liberation’. The Declaration committed the signatory governments to pursue policies aimed at economic liberation (i.e. to reduce economic

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dependence on South Africa) and the integrated and equitable development of the economies of the region. The Southern African Development Co-ordinating Conference (SADCC) was subsequently formalised by means of a Memorandum of Understanding on the Institutions of the Southern African Development Co-ordination Conference dated 20th July 1981. In 1989 the Summit of Heads of State or Government, meeting in Harare, decided that SADCC should be formalised to “give it an appropriate legal status … to replace the Memorandum of Understanding with an Agreement, Charter or Treaty.” In 1992 the SADCC transformed itself into the Southern African Development Community (SADC). The SADC Treaty was signed in Windhoek on the 17th August 1992. On 14 August 2001, Heads of State and Government signed an Agreement Amending the SADC Treaty in Blantyre.

The main objectives of SADC, among others, are: to promote sustainable and equitable economic growth and socio-economic development, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa through regional integration, achieve complementarities between national and regional strategies and programs, and combat HIV/AIDS or other deadly and communicable diseases. These objectives are being realized through the development and activation of the following policies and initiatives: harmonization of political and socio-economic policies and plans of Member States; elimination of obstacles to the free movements of people, capital, labour, goods and services; increasing regional integration, built on democratic principles and equitable and sustainable development, and coordination and harmonization of the international relations of Member States.

The countries of Southern Africa have adopted a framework of cooperation based on:

- deeper economic co-operation and integration, on basis of balance, equity and mutual benefit, providing for enhanced investment and trade, and freer movement of factors of production, and goods and services across national borders;
- common economic, political, social values and systems, enhancing enterprise and competitiveness, democracy and good governance, respect for the rule of law and the guarantee of human rights, popular participation and the alleviation of poverty; and
- regional solidarity, peace and security, in order for the people of the region to live and work together in peace and harmony.

SADC is governed by the following Institutions:

The **Summit of Heads of State and Government** is the ultimate policy-making institution of SADC. It is responsible for the overall policy direction and control of functions of the Community. The Summit used to meet once a year around August/September in a Member State at which a new Chairperson and Deputy are elected. Under the new structure, Summit will meet twice a year. The Summit elects a Chairperson and a Deputy Chairperson of SADC for one year on rotational basis.

The **Troika** system which consists of the Chair, Incoming Chair and the Outgoing Chair of SADC has been effective since it was established by the Summit in 1999. The Troika configuration applies to the Summit, the Organ, the Council, the Integrated Committee of Ministers and the Standing Committee of Officials. Other Member States may be co-opted into the Troika as and when necessary. The troika system has enabled SADC to execute tasks and implement decisions expeditiously as well as provide policy direction to SADC institutions in between regular SADC meetings.

The **Organ on Defence, Politics and Security Co-operation** is responsible for promoting peace and security in the region. It reports to the SADC Summit and is headed by a Troika. Ministers of Foreign Affairs of each MS perform the functions of the Organ relating to politics and diplomacy within the Inter-state Politics and Diplomacy Committee. Ministers for Defence, Public Security and State Security work through the Inter-state Defence and Security Committee.

The **Council of Ministers** consists of one minister from each MS, usually from the ministries of foreign affairs and economic planning or finance. The Council is responsible for overseeing the functioning and development of SADC, ensuring that policies are properly implemented, and approving policies, strategies and work programs.

The **Integrated Committee of Ministers (ICM)** consists of at least two ministers from each MS. It has decision making powers to ensure rapid implementation of programs that would otherwise wait for a formal meeting of the Council and is responsible for overseeing the activities of the core areas of integration which include: Trade, industry, finance and investments; Infrastructure and services; Food, agriculture and natural resources; and social and human development and special programs.
The **Standing Committee of Officials** consists of one Permanent/Principal Secretary or an official of equivalent rank from each MS, preferably from the ministry that is the SADC National Contact Point. This Committee is a technical advisory committee to the Council. The Chairperson and Vice-Chairperson of the Standing Committee are appointed from the Member States holding the Chairpersonship and Vice-Chairpersonship, respectively, of the Council.

The **Secretariat** is the principal executive institution of SADC responsible for strategic planning, coordination and management of SADC programs. It is headed by an Executive Secretary. Priorities for the Secretariat are based on how the Secretariat can best contribute to the overall objective of SADC. These priorities were recently agreed upon and include: Trade, Finance and Investment; Enhancing capacity for human resources development; Stakeholder participation; Gender mainstreaming; Promotion of SADC image; Policy, formulation and harmonisation; and Strengthening of institutions involved in community building. The organizational structure of the SADC Secretariat is illustrated in Figure 1.

**Figure 1: Organizational structure of the SADC Secretariat, as approved in February 2008**

**The SADC Tribunal:** A protocol to establish the Tribunal was signed in Windhoek, Namibia during the 2000 Ordinary Summit. An agreement amending the protocol on the SADC Tribunal was signed by Heads of State and Government in Luanda, October 2002, and the Tribunal became operational in 2005. The Tribunal mandate is to ensure adherence to, and proper interpretation of the provisions of the SADC Treaty and subsidiary instruments, and to adjudicate upon disputes, referred to it.

**The SADC National Committees** are composed of key stakeholders notably government, private sector and civil society in Member States. Their main functions are to provide inputs at the national level in the formulation of regional policies and strategies, as well as to coordinate and oversee the implementation of these programs at the national level. The Committees are also responsible for the initiation of projects and issue papers as an input to the preparation of the Regional Indicative Development Plan.

The human health, animal health & veterinary services, and the wildlife sector are governed by the following protocols or declaration:

**Human Health:**

A **Protocol on Human Health** was adopted in 1999 aiming to achieve the following objectives:
• to identify, promote, co-ordinate and support those activities that have the potential to improve the health of the population within the Region;
• to co-ordinate regional efforts on epidemic preparedness, mapping, prevention, control and where possible the eradication of communicable and non-communicable diseases;
• to promote and co-ordinate the development, education, training and effective utilisation of health personnel and facilities;
• to foster co-operation and co-ordination in the area of health with international organisations and co-operating partners;
• to promote and co-ordinate laboratory services in the area of health.

The Protocol identified 23 areas of cooperation to be implemented – in view of resource constraints - over 5 years based on defined priorities. The four broad priority areas were identified as: control of communicable and non communicable diseases, family health, health promotion and education and health systems. The priorities were selected taking into account a number of factors such as the global and regional commitments of MS and the disease burden

**Wildlife Conservation and law enforcement**

The Protocol on Wildlife Conservation and Law enforcement was adopted in 1999 with the aim of establishing, within the region and within the framework of the respective national laws, common approaches to the conservation and sustainable use of wildlife resources and assisting with effective enforcement of the laws governing these resources. More specifically the protocol aims to:

• Promote the sustainable use of wildlife
• Harmonise legal instruments governing wildlife use and conservation
• Enforce wildlife laws within, between and among States Parties
• Facilitate the exchange of information concerning wildlife management, utilization and the enforcement of wildlife laws
• Assist in the building of national and regional capacity for wildlife management, conservation and enforcement of wildlife laws
• Promote the conservation of shared wildlife resources through the establishment of trans-frontier conservation areas; and
• Facilitate community-based natural resource management practices for management of wildlife resources.

Policy decision for the implementation of the protocol are made through periodic meetings (at least once a year) of committees of ministers and senior government officials. The protocol also spells out the legal instruments, wildlife management and conservation programs, and the needs for information sharing, cooperation, financial provisions for achieving the objectives. It also provides for sanctioning and arbitration procedures.

**Trade**

A Protocol on Trade was adopted in 1999. The Protocol governs trade issues and addresses the following objectives in relation to Sanitary and Phytosanitary (SPS):

• To facilitate protection of human, animal and plant life or health;
• To enhance the implementation of the WTO Agreement on the Application of SPS Measures;
• To enhance Technical capacity to implement and monitor SPS measures, including promoting greater use of international standards and other matters concerning SPS;
• To provide a regional forum for addressing sanitary and phytosanitary matters;
• To provide a forum for resolving trade related sanitary and phytosanitary issues.

Also foreseen is the establishment of an SPS Coordinating Committee, comprising of representatives of each National Committee on SPS Measures, with the aim of becoming a forum for promoting the objectives of the Annex. The Committee will report to the SADC Trade Negotiating Forum.

**Agriculture and Food Security**
A Declaration on Agriculture and Food Security in the SADC Region was signed in Dar-es-Salaam in 2004, with the objective of promoting agriculture. The declaration outlines the following short, medium, and/or long-term objectives:

Livestock sub-sector:

- to revitalize the national control measures of migratory pests and diseases;
- to strengthen surveillance, control, eradication and information sharing on trans-boundary pests and diseases of plants and animals;
- to develop and implement strategies and programmes for prevention, progressive control and eradication of trans-boundary animal diseases; and
- to develop comprehensive national Tsetse and Trypanosomiasis control and eradication programmes.

Further medium term objectives include:

Disaster Preparedness:

- to strengthen national early warning systems;
- to enhance vulnerability monitoring capabilities;
- to develop a Regional Integrated Agricultural Information System; and
- to consider the establishment of a Regional Food Reserve Facility.

Access to Market:

- to expedite harmonization and implementation of Sanitary and Phytosanitary measures to the required international standards;

The Regional Indicative Strategic Development Plan (RISDP)

In March 2001 SADC Heads of State and Government approved the restructuring of SADC Institutions, comprising the grouping of 21 sectors into clusters under four Directorates at the Secretariat and the establishment of SADC National Committee (SNC). The development of Regional Indicative Strategic Development Plan (RISDP) was also initiated with the aim to complement the restructuring and to provide a clear direction for SADC policies and programs over a long term period (15 years). The RISDP was adopted in 2003 as the main instrument in achieving regional economic integration. In this context, SADC aims to establish a Free Trade Area (FTA) by the year 2008, a Customs Union by 2010, a Common Market by 2015, a Monetary Union by 2016, and a regional Central Bank with a common currency by 2018.

The RISDP, aiming at promoting sustainable and equitable economic growth and socio-economic development that will ensure poverty alleviation, is articulated into two main intervention areas:

The Cross Sectoral Intervention with the following priority interventions defined: Poverty eradication; Combating of the HIV and AIDS pandemic; Gender equality and development; Science and Technology; Information and Communication technologies; Environment and Sustainable development; Private sector; and Statistics; and

The Sectoral cooperation with the following priority interventions defined: Trade/economic liberalization and development; Infrastructure support for regional integration and poverty eradication; Sustainable food security; and Human and social development.

The aim from the cooperation in sustainable food security is to achieve long lasting access to safe and adequate food at all times by all people in SADC for an active and healthy life. The cooperation on sustainable food security focuses on improving food availability, access to food, and nutritional value of food, while minimizing food losses; improving forecasting, prevention, mitigation and recovery from adverse effects of natural disasters; and improving the institutional framework. The goal on the food availability focus includes reducing incidences of TADs and particularly FMD to half by 2015 in order to fulfill the objective of increasing livestock production by at least 4% annually, and compliance with the SPS
measures and standards in line with WTO agreements. Also in relation to food security, a key strategy is to broaden and strengthen the early warning system to cover food availability, access to food, information on staple food markets, and information on crop and livestock pests and diseases. Furthermore, a Regional Agriculture Policy (RAP) is at an advanced stage of development, with clear recommendations on collaboration between the Public Health Sector and Veterinary services.

The goal from the cooperation in the Human and Social Development is to contribute to the reduction of human poverty and to improve the availability of educated, healthy, skilled, flexible, culturally responsive, productive and efficient human resources for the promotion of SADC’s equitable growth, deeper integration and its competitiveness in the global economy. Under this focus area, several strategies are foreseen, namely: the coordination, harmonization, monitoring the implementation and engendering of regional policies, strategies and Protocols in the areas of education, training, health, nutrition, welfare and social development, culture, information, sport, employment and labour for combating human poverty, HIV and AIDS as well as developing and strengthening mechanisms for addressing emerging communicable diseases.

There are guiding principles that define the priorities in the implementation of RISDP such as the programs which: add value to regional integration or enhance the capacity to achieve SADC objectives; are based on broad participation and consultation with stakeholders; adopt the principle of subsidiarity; and promote the maximum engagement of regional expertise and institutions for program management and implementation; adopt decentralised management to favour participatory approaches.

Also foreseen in the development of the RISDP is to address the development discrepancies that exist between MS. In order to achieve this RISDP is implemented as much as possible in the context of spatial development initiatives such as development corridors, growth triangles, growth centres and trans-frontier conservation areas. Special consideration should also be given to allowing for variable geometry, where a group of Member States could move faster on certain activities.

The RISDP is managed through four layers: political, operational, programme and stakeholders. The key institutions providing policy direction and oversight are the SADC Council of Ministers through the Integrated Committee of Ministers (ICM). The ICM is directly responsible for monitoring the implementation of RISDP and for giving policy guidance to the Secretariat which is responsible for management and coordination of implementation of SADC programs such as the RISDP, at the strategic level. The key structures in the implementation of specific programs, are some or all of the following bodies: The Secretariat; Cooperating partners; Technical Committees and sub-committees; Program Steering Committees, Member States participating in the program; SADC National Committees, and other Stakeholders, Implementing Agents and Contractors.

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3One of the specific targets under the Institutional framework focus is the completion of the SPS Annex to the trade protocol and the implementation of existing protocols on fisheries, forestry and wildlife.
2. Animal Health

2.1 Overview of the livestock sector

2.1.1 Importance of the livestock sector

Livestock contributes significantly to the social and economic wealth of the people in the SADC region. Over 60% of the region’s total land area is suitable for livestock farming. The regional farm animal resources are very diverse including but not limited to cattle, chickens, ducks, goats, sheep, pigs, equines (horses and donkeys), turkeys and ostriches. Livestock contributes between 20-40% of the total Agricultural GDP in the SADC region, which is significantly below the potential.

Most of the livestock industry is based on smallholder farming characterised by low productivity, vulnerability and poor competitiveness. In spite of the significant volumes of livestock products, the SADC region is a net importer of livestock and livestock products. Detailed data on livestock production and trade in the SADC Region are provided in Annex 2. (Tables 13, 14, 15 and 16).

2.1.2 Production and Trade

Over 75% of the livestock is kept under smallholder traditional systems. It is estimated that the regional food production from farm animals in 2008 was 53.6 million litres of whole milk, 0.67 million metric tonnes of hen eggs, 1.6 million tonnes of beef, 0.15 million tonnes of mutton, 0.18 million tonnes of goat meat, 0.4 million tonnes of pig meat and 1.3 million tonnes of poultry meat.

A few SADC MS export livestock products of most importance is the export of quality beef to the EU countries and Norway by South Africa, Namibia, Botswana and, in the past Zimbabwe. However, overall the region is a net importer of livestock and livestock products. For example, the region imported 91,020 heads of cattle, 610,752 sheep, 164,659 goats, 2550 pigs and 13.2 million chickens together valued at over US$ 103 million in 2007 (source; FAOSTAT).

Agriculture is the major social and economic sector in the region employing about 70% of the population in SADC MS with provision of food and income. The Livestock sector will be well covered in the proposed Regional Agricultural Policy Framework (RAPF). The proposed policy also recognizes challenges and constraints facing the livestock sector in the SADC region.

Several SADC MS have undertaken value chain analysis for their respective livestock industries. The common feature of the chains is the progressive, though slow, evolution from low input low output traditional and informal systems to commercialised and formal systems. Poor animal health remains a major obstacle to the competitiveness of the various types of livestock industries, especially considering the risks of transmitting TADs and zoonotic diseases through imported live animals. Other constraints include poor hygiene and food safety measures, poor compliance with SPS measures, poor market access and poor processing, packaging and distribution systems. The stakeholders (e.g. producers, producers associations, processors, traders, middlemen, exporters, importers, etc) in the livestock value chain regardless of their status have a role to play in biosecurity and hence TADs and zoonoses incursions and spread. Targeted education on the roles each stakeholder may play to ensure safe livestock production, processing and marketing will greatly assist in the prevention and control of TADs and zoonoses. The SADC can develop training resource/curriculum that can be adopted by the MS to achieve the objective of prevention and control of TADs and zoonoses.

The SADC region applies the Standard Operation Procedures (SOPs) and standards as set by OIE and other international organisations for both cross-border and international trade. A specific Annex to the SADC Trade Protocol was recently developed to regulate trade and protect human, animal and plant health and life. From SADC’s standpoint, it has not been necessary to have any regional specific regulations to govern livestock trade since the current international standards are adequate and acceptable. However, it is still important for the SADC to continue to harmonize the standards and SOPs so that all MS operates on the same grounds removing any possibility of cross border infringements i.e. crossing from one country to another where the standards are lower.

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SADC Secretariat acknowledges the fact that distribution channels for livestock and livestock products follow both the formal (official channels) and informal channels. However, it is not possible to give reliable estimates for the volume of trade in the informal channels, or to acquire reliable information about the informal cross-border livestock trade within the SADC MS. This underscores the magnitude of risks in transmission of TADs and zoonoses.

2.1.3 Bio-security measures

The risk of spreading animal diseases are exasperated in the SADC region by poor control measures specially in the extensive and communal livestock production systems. This is further complicated by a large number of back yard poultry and unhygienic home slaughter food preparation methods that expose humans to disease.

Although there is no document or guidelines specific for regional biosecurity in the livestock sector, individual MS have incorporated the concept in their Integrated National Action Programs for AHI (INAPs). For instance the INAPs in the Democratic Republic of Congo, Lesotho and Mozambique have demonstrated awareness of the biosecurity measures, especially in live bird markets. At the regional level SADC has established in 2006 a disease preparedness and response plan that aims to “Keep Southern African Community free of Highly Pathogenic Avian Influenza and Pandemic Human Influenza”.

Among the programs existing at regional levels to strengthen biosecurity measures, although not directly, are the epidemiology and laboratory networks which received accolades by both the ALive feasibility study on laboratory networks in Africa\(^5\) and ALive epidemiology Networks in Africa feasibility study\(^6\). There is also a well defined and adequate monthly disease reporting system by which MS report to the livestock unit of the FNAR of the SADC Secretariat.

2.2 Overview of the Wildlife sector

2.2.1 Importance of the wildlife sector

The SADC region is endowed with a rich biodiversity. Twenty six of the 82 sites globally chosen for their species richness and endemism in sub-Saharan Africa are in Southern Africa. More than 40% of the region’s species are endemic. The region’s biodiversity includes hundreds or thousands of species of birds, plants, mammals, reptiles, fish, amphibians and invertebrates among others (Table 2). The SADC’s regional biodiversity strategy aims at conserving the region’s biological resources, while sustaining economic and social development and promoting equitable and regulated access to, benefits from, and responsibilities for protecting biodiversity.

A large proportion of SADC land (up to 39%) is protected areas featuring a spectacular concentration of large wild mammals. The region has over 240,000 elephants accounting for 39% of all African elephants. It is also home to 35 species of large free-ranging herbivores and 5 or 6 species of large free-ranging carnivores. Leopard, lion, hyena, buffalo, zebra, kudu, and several other antelopes are among the species that occur in large numbers. Cheetah and rhino are present in small numbers but these constitute a high proportion of the world’s population of both species. Data on population status and distribution of wildlife species in the SADC is limited to a few flagship species, especially elephant and rhinoceros.

Large wild mammals are a unique economic resource in the sense that they make better use of vegetation compared to livestock and have many marketable uses in addition to meat production. They are also used for tourism both non-consumptively (e.g. through game-viewing and photography) and consumptively (e.g. sport-hunting). Wildlife therefore has a great potential to offer diversified livelihoods to rural communities in the SADC.

The SADC has some of the best game parks and ecotourism destinations in the world. Wildlife based tourism brings millions of dollars in foreign currency into the region. In fact, the activity ranks among the top three contributors to the GDP of most countries of Southern Africa. For example, tourism based receipts were USD 4,625 million, USD 4,717 million and USD 4,989 million in 1997, 1998 and 1999 respectively. The tourism industry in the SADC has immense potential and is expected to grow and to contribute 3.5% to the region’s GDP by 2015. Recent data on the contribution of wildlife to the GDP of the SADC seems to be scarce.

\(^5\) Alive Feasibility Study of Laboratory Networks in Africa, February 2009
\(^6\) Alive Epidemiology Networks in Africa Feasibility Study, December 2008
Table 2: Protected areas and biodiversity distribution in the SADC countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Protected areas</th>
<th>Species diversity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number*</td>
<td>Area (000 ha)</td>
</tr>
<tr>
<td>Angola</td>
<td>12</td>
<td>8,220</td>
</tr>
<tr>
<td>Botswana</td>
<td>71</td>
<td>10,499</td>
</tr>
<tr>
<td>DRC</td>
<td>83</td>
<td>19,393</td>
</tr>
<tr>
<td>Lesotho</td>
<td>7</td>
<td>680</td>
</tr>
<tr>
<td>Madagascar</td>
<td>53</td>
<td>1,829</td>
</tr>
<tr>
<td>Malawi+</td>
<td>130</td>
<td>1,058</td>
</tr>
<tr>
<td>Mauritius</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Mozambique</td>
<td>35</td>
<td>12,875</td>
</tr>
<tr>
<td>Namibia</td>
<td>196</td>
<td>11,216</td>
</tr>
<tr>
<td>Seychelles</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>South Africa</td>
<td>528</td>
<td>7,314</td>
</tr>
<tr>
<td>Swaziland</td>
<td>8</td>
<td>76</td>
</tr>
<tr>
<td>Tanzania</td>
<td>792</td>
<td>26,262</td>
</tr>
<tr>
<td>Zambia</td>
<td>683</td>
<td>22,650</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>249</td>
<td>5,850</td>
</tr>
<tr>
<td>Total</td>
<td>2,867</td>
<td>127,933</td>
</tr>
</tbody>
</table>

In addition to wildlife based tourism, some countries in the SADC exploit the full range of both consumptive and non-consuctive use which is fully incorporated into the wildlife policy and legislation. Sport-hunting, for instance, is practised in the region with 420,000 Km² of communal land, 188,000 Km² of commercial land and 420,089 Km² of state land being offered for the activity in 2000. Game ranching and cropping for meat, hides and other products is practised and well organized in some of the countries. Recent data on the economic value of wildlife at regional level, however, appears to be scarce.

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

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

The SADC has not experienced any outbreak of H5N1 strain of Highly Pathogenic Avian Influenza (HPAI). One outbreak caused by a different highly pathogenic strain, the H5N2, was reported in 2004 in Eastern Cape Province of South Africa affecting ostriches in a farm. This outbreak was effectively stamped out and 14,000 ostriches were destroyed in the process.

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 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

Several diseases that are shared between wildlife and livestock impact on humans directly or indirectly (Table 3). Diseases
such as rabies, anthrax, Ebola, trypanosomiasis and brucellosis that affect both wild and domestic animals are zoonotic thus
negatively affecting human health directly. On the other hand diseases such as FMD and PPR have a huge indirect negative
impact on human health by reducing food security and livelihoods accruing from trade.

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

X-indicates that the species is affected

<table>
<thead>
<tr>
<th>Infectious disease</th>
<th>Affects wildlife</th>
<th>Affects domestic animals</th>
<th>Affects humans directly</th>
<th>Affects human livelihoods indirectly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabies</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Anthrax</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Brucellosis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ebola</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Scabies</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Toxoplasmosis</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Leptospirosis</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Leishmania</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Distemper</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Food and mouth</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Trypanosomiasis</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>PPR</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Rinderpest</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>HPAI</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
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 becomes a major challenge.

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

<table>
<thead>
<tr>
<th>Disease</th>
<th>Notable species</th>
<th>Epidemiological role</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMD</td>
<td>Buffalo, impala, wildebeest,</td>
<td>Epidemic host</td>
<td>Low</td>
</tr>
<tr>
<td>Anthrax</td>
<td>Kudu, impala</td>
<td>Multiplier epidemic hosts</td>
<td>High</td>
</tr>
<tr>
<td>Bovine TB</td>
<td>Buffalo, kudu</td>
<td>Epidemic hosts</td>
<td>Moderate</td>
</tr>
<tr>
<td>PPR</td>
<td>Gazzelle, oryx, ibix</td>
<td>Epidemic host</td>
<td>Moderate</td>
</tr>
<tr>
<td>Rinderpest</td>
<td>Eland, kudu, bushbuck, giraffe,</td>
<td>Epidemic host</td>
<td>High</td>
</tr>
<tr>
<td>Brucellosis</td>
<td>Buffalo</td>
<td>Epidemic host</td>
<td>Low</td>
</tr>
<tr>
<td>Ticks and TBDs</td>
<td>Eland, buffalo, impala</td>
<td>Multiplier endemic host</td>
<td>Low</td>
</tr>
<tr>
<td>Internal parasites</td>
<td>Grazing ungulates</td>
<td>Multiplier endemic host</td>
<td>Low</td>
</tr>
<tr>
<td>Canine distemper</td>
<td>Lions, wild dogs</td>
<td>Epidemic host</td>
<td>High</td>
</tr>
<tr>
<td>Rabies</td>
<td>wild dogs, kudu,</td>
<td>Epidemic host</td>
<td>High mortality</td>
</tr>
<tr>
<td></td>
<td>Yellow mongoose, bat-eared monkey, gorillas, chimps</td>
<td>Epidemic host</td>
<td>High?</td>
</tr>
<tr>
<td>Ebola</td>
<td>Eland, springbuck, lechwe,</td>
<td>Endemic hosts</td>
<td>None</td>
</tr>
<tr>
<td>Trypanosomiasis</td>
<td>Bushbuck</td>
<td>Multiplier endemic host</td>
<td>None</td>
</tr>
<tr>
<td>LPAI</td>
<td>Water birds</td>
<td>Maintenance host</td>
<td>None</td>
</tr>
</tbody>
</table>

Important species specific associations

<table>
<thead>
<tr>
<th>Species</th>
<th>Disease</th>
<th>Role</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td>BTB</td>
<td>Maintenance host</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>FMD</td>
<td>Maintenance host</td>
<td>Negligible</td>
</tr>
<tr>
<td></td>
<td>Rinderpest</td>
<td>Multiplier epidemic host</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Corridor disease</td>
<td>Endemic host</td>
<td>None</td>
</tr>
<tr>
<td>Bushbuck</td>
<td>Bovine petechial fever</td>
<td>Endemic host</td>
<td>None</td>
</tr>
<tr>
<td>Warthog</td>
<td>ASF</td>
<td>Endemic host</td>
<td>None</td>
</tr>
<tr>
<td>Wildebeest</td>
<td>MCF</td>
<td>Endemic host</td>
<td>None</td>
</tr>
</tbody>
</table>
Cross-transmission of infectious agents at interface between wildlife, domestic animals and humans is of great concern in the SADC region. The wildlife-livestock interface in the region takes various forms ranging from linear, along the livestock fences, to diffuse in areas where wildlife and livestock intermingle freely and share resources. The interface is expected to expand and intensify with the creation of TFCAs that will enhance cross-border and long-distance migration of wildlife species across several countries.

Four categories of disease at the wildlife-livestock interface may be recognized in the SADC. Firstly, are those diseases that are considered indigenous and for which wild animals serve as a reservoir, secondly are multispecies diseases with an almost world-wide distribution and for which transmission is bidirectional and dominant role players vary between regions, thirdly are so-called alien diseases that cause significant mortality and morbidity in wildlife and fourthly are novel emerging and re-emerging diseases. The role of wildlife in the epidemiology of common disease is summarised in Table (4) above. Below is a summary about the disease of concern to SADC.

Indigenous disease:

**FMD:** Of greatest concern to the SADC under the first category of diseases is FMD. The wild buffalo has been shown to harbour FMD virus for periods in excess of five years without showing disease symptoms. Such infections can circulate within the buffalo populations independently of disease events in livestock. However, under some circumstances when buffaloes come into close contact with cattle, for example after a prolonged period of drought, FMD infection can be transmitted from buffalo to cattle. A combination of game-proof fences, movement restrictions, surveillance and vaccination has traditionally been used in the SADC to control FMD and maintain disease free zones. Maintenance of the fences as a disease barrier is faced with challenges. For example, the fences are destroyed by elephants or prolonged flooding. In addition, formation of TFCAs has necessitated the removal of some fences.

The other diseases that may be maintained in wildlife in the SADC are African swine fever (ASF), Trypanosomiasis, Theileriosis, African horse sickness and Alcelaphine herpesvirus-1. ASF is maintained by the argaside tick (*Ornithodoros moubata*) with the free-ranging wild porcine playing a secondary role. Wildebeest (*Connochaetes taurinus*) play an important role in the maintenance and seasonal shedding of the *Alcelaphine herpes virus*-1. Many species of antelope, buffalo (*Syncerus caffer*), warthog (*Phacochoerus aethiopicus*), hippopotamus (*Hippopotamus amphibious*), elephant (*Loxodonta africana*) and rhinoceros (*Diceros bicornis*) can serve as excellent maintaining hosts of trypanosomiasis, a disease that severely hampers development of the livestock industry. Buffalo serve as a reservoir of *Theileria lawrencei* that is transmitted by ticks to cause heavy mortalities in cattle, making farming of cattle in the presence of buffalo a hazardous undertaking. African horse sickness is endemic in zebra (*Equus burchelli*) populations and cycles throughout the year in the environmental conditions that are associated with anthrax outbreaks. African horse sickness is endemic in zebra (*Equus burchelli*) populations and cycles throughout the year in the presence of certain persistence culicoides populations.

**Worldwide multiple-species diseases**

Among the multiple-species diseases of almost global distribution, the diseases of concern in the SADC regions are rabies, anthrax and brucellosis all of which are also zoonotic.

**Rabies** was diagnosed in SSA in 33 carnivore species and 23 herbivorous species, with a regional variation of dominant role players. The largest numbers of cases of rabies occur in domestic dog and cattle with a “spill-over” to other species including domestic, wildlife and man.

**Anthrax** outbreaks have been documented in most domestic species, in the absence of any wildlife link. Similarly localised to extensive outbreaks have occurred in wildlife species with no livestock link. Large-scale outbreaks may cross this interface especially where domestic and non-domesticated species share range and resources in the environmental conditions that are associated with anthrax outbreaks.

**Brucellosis** has been described in several free-range ecosystems affecting predominantly buffalo, waterbuck and hippopotamus. This is an important disease at the wildlife-livestock interface which has zoonotic potential.

**Alien diseases**

**Bovine tuberculosis.** Transmission of bovine tuberculosis from cattle to buffaloes and small antelopes and then from either cattle or buffaloes to humans is of increasing concern in the SADC region. The problem is being observed in other countries where there is a close contact between wildlife and cattle. Here the concern is not only the health of cattle and...
wildlife but also of humans, especially as bovine tuberculosis has the potential for causing serious complications in HIV/AIDS immune compromised patients.

**Canine Distemper** virus has crossed the species barrier in the Serengeti-Mara ecosystem in the last decade leading to deaths of up to 30% of lions and possibly contributing to the decimation of the wild dogs.

**Emerging diseases**

**Ebola** is a severe, often fatal disease in humans and non-human primates (monkeys, gorillas and chimpanzees). The natural reservoir is thought to be species of fruit bats native to tropical forests. Large die-offs of endangered species of non-human primates have been linked to infection with Ebola and infected animals can serve as a source of infection of Ebola in humans. Human outbreaks of Ebola are often linked to hunting of wildlife or to human activities such as mining in proximity to bat roosts or caves.

**Epizootic Ulcerative Syndrome (EUS):** The outbreak of EUS was first reported in SADC in 2006. The disease has caused significant negative social and economic impacts among poor and vulnerable communities that are dependent on these aquatic resources for food and income. SADC partners, FAO and OIE provided support in disease diagnosis, surveillance risk assessment, and primary aquatic health management and in improving veterinary capacity.

**American Foul Brood (AFB)** is a serious bacterial (*Paenibacillus larvae*) disease of honey bees newly introduced to the SADC. The disease causes a challenge to commercial honey production and pollination of commercial crops such as deciduous fruit and vegetable seed producing crop. Progressive eradication plan-first phase- is destruction of hives known to be infected, surveillance and eradication processes, risk management measures, compulsory registration, using marked hives.

Other diseases that have been reported in wildlife in SADC are highly pathogenic avian influenza in ostriches, parafilariosis in buffalo, feline immunodeficiency virus in free-ranging carnivores and encephalomyocarditis in free-ranging African buffalo.

### 2.2.3 Wildlife health services

Functional wildlife veterinary units exist in South Africa, Zimbabwe, Botswana, Namibia, Zambia, DRC and Tanzania. The units are either within the ministries responsible for wildlife or within the departments of veterinary services. In Botswana a designated wildlife focal point within the DVS works very closely with the veterinary unit of the Department of Wildlife and National Parks (W&NP) and both have minimal wildlife capture equipment. In Tanzania the wildlife veterinary units are in three departments, namely Tanzania National Parks (TANAPA), Ministry of Natural Resources (MNR) and Tanzania Wildlife research Institute (TAWIRI). In Zimbabwe, the veterinary unit is within the Veterinary and Livestock Services in the Ministry of Agriculture, Mechanization and Irrigation.

Most of them are poorly equipped and understaffed. The only exception is the wildlife veterinary department in South Africa which is equipped with elaborate wildlife capture capabilities and a 50 person workforce. The department has two geographically based operations units, one within Kruger and the other within Kimberly National Parks. Tanzania veterinary units have a total of 11 wildlife veterinarians and 3 technicians. Both the Zambia and Zimbabwe units have 2 wildlife veterinarians, while Botswana has three (2 in the W&NP and 1 in the DVS). Most of the countries without functional wildlife veterinary units have wildlife focal persons within the DVS that liaise with designated persons in the departments responsible for wildlife on matters of wildlife diseases. Most of the wildlife veterinary units have at least basic wildlife capture equipment, but a dedicated wildlife laboratory is only found in South Africa.

Collaboration between the DVS and the departments responsible for wildlife is variously through designated wildlife focal persons, ad hoc consultations, joint projects and normal reporting of wildlife disease matters to the DVS as the national authority responsible for animal health. A recent development is the appointment of OIE wildlife focal persons in the departments responsible for wildlife to address international reporting of diseases of wildlife. A recent meeting of these focal persons was held in Arusha, Tanzania to discuss various issues including their terms of references and modes of operation.

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On the overall, wildlife health services in most SADC countries are weak. However, there is potential for capacity sharing and strengthening as well as establishment of centre(s) of excellence for wildlife health within the region. Private wildlife capture practices are well advanced in the region, particularly in Southern Africa. Training on wildlife capture is also quite advanced with training courses that have been going on for many years in Zimbabwe and South Africa. In addition the sole suppliers for wildlife capture drugs and capture nets (such as Norvatis and ALNET, respectively) are located in South Africa.

### Table 5: Capacities of SADC wildlife veterinary services based on a questionnaire administered to DVSs

<table>
<thead>
<tr>
<th>Country</th>
<th>Veterinary unit</th>
<th>Human resources</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existence</td>
<td>Department</td>
<td>Number of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Veterinarians</td>
</tr>
<tr>
<td>Angola</td>
<td>-</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>Botswana</td>
<td>+</td>
<td>W&amp;NP, DVS</td>
<td>3</td>
</tr>
<tr>
<td>DRC</td>
<td>+</td>
<td>E&amp;T</td>
<td>NS</td>
</tr>
<tr>
<td>Lesotho</td>
<td>-</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>Malawi</td>
<td>-</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>Mozambique</td>
<td>+</td>
<td>DVS</td>
<td>-</td>
</tr>
<tr>
<td>Namibia</td>
<td>+</td>
<td>E&amp;C</td>
<td>NS</td>
</tr>
<tr>
<td>Seychelles</td>
<td>-</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>Swaziland</td>
<td>-</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>Tanzania</td>
<td>+</td>
<td>MNR, TANAPA, TAWIRI</td>
<td>11</td>
</tr>
<tr>
<td>Zambia</td>
<td>+</td>
<td>ZWA</td>
<td>2</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>+</td>
<td>AM&amp;ID</td>
<td>2</td>
</tr>
</tbody>
</table>

**KEY:** (+=Present, - = Absent) NA= Not applicable, W&NP=Department of Wildlife and National Parks, DVS=Department of Veterinary Services, E&T=Ministry of Environment and Tourism, E&C=Ministry of Environment and Conservation, MNR=Ministry of Natural Resources, TANAPA=Tanzania National Parks, TAWIRI=Tanzania Wildlife Research Institute.

**NB:** Questionnaire administered during the IRCM validation workshop in April 2010

More country level information is needed to ascertain the state of wildlife veterinary services and the linkages that exist with national veterinary and public health services. FAO ECTAD is carrying out a structured survey for all important TADs and zoonoses at the interface between the Okavango Delta (as part of the KAZA TFCA) and Ngamiland extensive cattle ranching area.

#### 2.2.4 Management of Wildlife

Several wildlife species exhibit trans-boundary migration patterns. The region therefore promotes transboundary management of wildlife as well as other natural resources, particularly water. Serious environmental challenges in the region are leading to the loss of its rich biological heritage and ecological processes. Key among these challenges are the loss, fragmentation or degradation of habitats due to human intervention, and the increasing conflict between human and wildlife, especially associated with the increasing population of elephants in increasingly more fragmented habitats.
The concept of creating trans-frontier conservation areas (TFCAs) is recognised in the region as an important tool in promoting the conservation of biodiversity and endangered ecosystems. The SADC Protocol on Wildlife Conservation and Law Enforcement defines a TFCA as “an area or component of a large area that straddles the boundaries of two or more countries, encompassing one or more protected areas as well as multiple resource use areas”. It has been established that the development of TFCAs can contribute to the welfare and improvement in the standards of living of rural communities through diversified livelihood opportunities from tourism and tourism related products in addition to marketing of animal products.

The SADC Member States have identified 20 existing and potential TFCAs that cut across major biomes and eco-regions of the SADC countries, covering 470,000 km²—almost 50% of the combined size of formally Protected Areas of the entire SADC region (Figure 2). Of these, 11 have already received a mandate from participating countries and the remaining are at various stages of development. These areas are expected to yield many ecological and socio-economic benefits including strengthening the management of migratory wildlife and conservation of biodiversity, consolidating the integrity of natural ecosystems that straddle international boundaries, improving utilization of cross-border tourism opportunities, enhancing economic integration through cross-border trade and economically empowering rural communities among others.

The establishment of TFCAs, however, is likely to expand the interface between livestock, wildlife and humans and also intensify interactions between the three. This could pose serious challenges to the attempts of controlling TADs and zoonoses, particularly FMD for which certain indigenous serotypes (SAT1, SAT2 and SAT3) have a wildlife reservoir, and other diseases for which livestock/wildlife interactions constitute a reservoir. The negative consequences of these diseases to livestock industry competitiveness and trade opportunities could, however, be mitigated by improved diseases surveillance at the interface, greater inter-sectoral collaboration and strengthened capacity especially of the wildlife health services.

Fencing and intensive management of wildlife and livestock in separate, smaller and isolated patches of land were used as means of managing FMD risk in the SADC region. However, there is need for different approaches and techniques to deal with animal health issues in larger landscapes, and the more open, integrated land use systems likely to develop in TFCAs. This would require greater inter-sectoral collaboration between the livestock and wildlife sectors in the planning and management of TFCAs. In particular, greater understanding of disease dynamics at the wildlife livestock interface will be necessary. Strategic research, disease surveillance and monitoring are needed at the expanding livestock-wildlife interface in the SADC region.
2.3 Status and impact of AHI, TADs and other Zoonoses

The animal diseases in SADC have been categorized at the following three levels depending on their perceived importance:

- **Strategic:** for progressive elimination - FMD, CBPP
- **Tactical:** for intervention when the level becomes unacceptable - ASF, RVF, ND, LSD, and
- **Emerging/Exotic to SADC:** Rinderpest, PPR, BSE and AI

FMD and CBPP diseases have been identified as the most critical strategic diseases that require progressive elimination because of their immense economic impact on the region’s livestock industry. Although the SADC region is the most active compared to other African regions in international trade in livestock and livestock products, only a few countries (Botswana, Namibia, Swaziland and South Africa) have gained export quotas to the lucrative European Union (EU) beef market. However, Zimbabwe lost the market following the devastating outbreak of FMD in the early 2000.

The system of SADC disease monthly reporting was introduced in 1997 and currently there is good documentation of disease situation in the SADC region compiled in a very useful format of a year book. At the SADC Secretariat, the disease data is captured in the newly introduced LIMS database that helps in generating the reports as required. Overall the monthly disease reporting by the SADC Member States has improved from 2005 and has reached 97.0% in 2008. Also reporting quality has improved.

### 2.3.1 Status and impact of AHI outbreaks

**Pandemic influenza (H1N1)2009**

As of 26 May 2010, 80% of 18,598 laboratory confirmed human cases of Pandemic influenza (H1N1) 2009 reported in WHO African region were notified by 12 MS of SADC (Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Namibia, Seychelles, South Africa, Swaziland, Tanzania and Zimbabwe). South Africa alone reported 12,640 laboratory confirmed human cases including 93 deaths followed by Madagascar with 877 cases and 3 deaths.
Knowing that very few countries are capable to confirm Influenza A H1N1 in their laboratories, it is believed that the total number of clinical cases not confirmed by laboratory is even higher than the official reported cases to WHO.

**Highly Pathogenic Avian Influenza (HPAI)**

The SADC region continues to be free from HPAI. There are no confirmed outbreaks in any of the SADC MS. Despite this, all of them have maintained vigilance and almost all of them have national preparedness plans in case of outbreaks. This is facilitated by the SPINAP which is active in most SADC countries. The joint rapid assessment missions FAO/OIE/WHO/AU-IBAR/WB-ALive to develop the Integrated National Action Program (INAP) were conducted in 7 SADC countries, namely: DRC, Lesotho, Madagascar, Malawi, Mozambique, Namibia and Zambia.

As a preparation to face a threat of HPAI in the SADC region, an ad-hoc working group on HPAI was created in November 2007. The group is composed of five SADC MS derived from the two sub-committees directly involved in the HPAI preparedness group (i.e. Laboratory Diagnostics and Epidemiology-Informatics). This smaller and very specialized working group organizes two meetings per year where updates on HPAI are given and the assessment of the region’s preparedness status reviewed. This working group is fully funded by the FAO-ECTAD unit in Gaborone. However, in order to maintain the surveillance momentum on HPAI in the region, there is a need to align this disease with issues of food security and livelihood that affect small poultry producers in the region. A disease like Newcastle is a good candidate as it kills large numbers of poultry in the region and has similar signs as those of HPAI, otherwise HPAI surveillance alone is not sustainable.

### 2.3.2 Status and impact of TADs outbreaks

In 2008, a total of 69 types of diseases ranging from major TADs, parasitism, infections of unknown causes and zoonoses were reported to SADC Secretariat by MS. Caution has however to be exercised on presenting figures as there is severe under reporting of diseases in the majority of countries.

Among the major TADs reported in 2008 in the SADC MS are Lumpy Skin Diseases which affected all SADC countries except Seychelles (12,611 cases), Newcastle Disease affected 12 countries (21,1885 cases), African Swine Fever affected 10 countries (15,465 cases) and Foot and Mouth Disease affected 8 countries (10,160 cases). In addition, Contagious Bovine Pleuro-pneumonia was reported in 4 SADC countries with 1,909 cases. The situation regarding the above TADs and other re-emerging diseases in the region is summarized below.

**Foot and Mouth Disease (FMD)**

Abundance of wild buffaloes and uncontrolled domestic-wild animal movement as well as cross borderer livestock movement is the main reasons for the unsuccessful attempts to eliminate FMD from SADC region. Another reason is poor or inconsistent reporting which negatively impacts on the ability to confront any possible outbreaks. For example, the number of SADC countries which reported FMD dropped from eight 2008 to four in 2009. Also fewer outbreaks were reported compared to the previous year.

In 2008, a total of 126 outbreaks were reported in eight SADC MS with the highest number of cases reported in Zambia which accounted to 66.2% reported cases in the year. The disease also occurred in Botswana, Malawi, Mozambique, Namibia, South Africa, Tanzania, and Zimbabwe. The MFD virus mostly implicated in these outbreaks is SAT 2. More countries reported FMD in 2008 than in 2007. Also the disease cases increased by 42%. The spatial distribution of FMD in the region depicts at least three clusters involving several SADC MS. There is the Botswana/Namibia/Zambia Cluster, the South Africa/Zimbabwe Cluster, and the Tanzania/ Zambia Cluster. These clusters show some relationship in the pattern of disease transmission and maintenance.

Four SADC MS are recognized as FMD free where vaccination is not practiced (Lesotho, Madagascar, Mauritius and Swaziland) while three (Botswana, Namibia and South Africa) have FMD free zone where vaccination is not practiced.
Table 6: Reported Foot and Mouth Disease in SADC Countries 2007-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Outbreaks</td>
<td>No. Cases</td>
<td>No. Outbreaks</td>
</tr>
<tr>
<td>Angola</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Botswana</td>
<td>1</td>
<td>52</td>
<td>3</td>
</tr>
<tr>
<td>D.R. Congo</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lesotho</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Madagascar</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Malawi</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Mauritius</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mozambique</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Namibia</td>
<td>5</td>
<td>243</td>
<td>37</td>
</tr>
<tr>
<td>Seychelles</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>South Africa</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Swaziland</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tanzania</td>
<td>73</td>
<td>6,010</td>
<td>36</td>
</tr>
<tr>
<td>Zambia</td>
<td>0</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>7,133</td>
<td>126</td>
</tr>
</tbody>
</table>


The main strategies used for FMD control are vaccination, quarantine, movement control and fencing, depending on individual country situation. The vaccine is produced by the Botswana Vaccine Institute (BVI) which is the only FMD vaccine production facility in the region. In Angola FMD was diagnosed for the first time in June 2009 at the border with Zambia. The cause is suspected to be a result of cross border cattle movement. The situation regarding FMD in the region has been very unstable with the disease re-emerging after years of stability, especially in Botswana and Namibia. The epidemiology of the disease seems to be getting more complicated and many questions remain unanswered, an issue that requires more research.

Contagious Bovine Pleuropneumonia (CBPP)

During 2008, CBPP occurred in Angola, Namibia, Tanzania and Zambia with over 60% of all cases out of 94 outbreaks in the region reported in Angola. The same countries were affected in 2009 with 64 outbreaks and 604 cases with Angola dominating with 361 cases, but in total the situation was an improvement from 2008 and 2007 in which five countries had reported the disease with 165 outbreaks and 4402 cases. During 2009, the CBPP outbreaks followed the known clusters of the Angola/Northern Namibia/Western Zambia Cluster and the Tanzania/Northern Zambia Cluster. At the 2009 OIE World Assembly, only one SADC country, Botswana, was recognised as being free of CBPP. Other SADC countries did not submit an update on their status. The control measures mostly applied by the affected countries are vaccination using the T144 vaccine strain produced at BVI, movement control and quarantine.
Table 7: Reported Contagious Bovine Pleuro-pneumonia in SADC Countries 2007-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Outbreaks</td>
<td>No. Cases</td>
<td>No. Outbreaks</td>
</tr>
<tr>
<td>Angola</td>
<td>53</td>
<td>2,299</td>
<td>58</td>
</tr>
<tr>
<td>Namibia</td>
<td>5</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Tanzania</td>
<td>80</td>
<td>1,288</td>
<td>11</td>
</tr>
<tr>
<td>Zambia</td>
<td>15</td>
<td>491</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>4,093</td>
<td>94</td>
</tr>
</tbody>
</table>


Lumpy Skin Disease (LSD)

This LSD is endemic in the region and epidemics occur periodically in almost all the MS. The situation did not change significantly in 2009 compared to previous years, but there was however a serious and very virulent LSD outbreak in Northern Namibia due to heavy rains and flooding that resulted in very high calf mortalities but the disease eventually died off with the onset of the cold weather in April and May. There are reports of 510 outbreaks of LSD notified in 10 SADC countries in 2009, while the disease occurred in all the SADC countries except Seychelles in 2008. Zimbabwe, Madagascar and South Africa were the most affected countries accounting for 71.7% of all cases reported in the region. In 2007, there were 13 countries affected as compared to 2008. A total of 4509 cattle died of LSD in 2007 and in 2008 only 730 cattle died. LSD outbreaks are related to change in climatic conditions with hot weather and heavy rains favouring the multiplication of the insect vectors. The epicentre of the outbreak was in Zimbabwe. LSD control is through vaccination with the vaccine produced in South Africa at the Onderstepoort vaccine facility.

Newcastle Disease (ND)

In 2009, ND was reported in 8 countries while in 2008 it was reported in 12 SADC MS with the exception of Botswana, Mauritius and Seychelles. The disease affected primarily backyard poultry which are not usually vaccinated. Although the reports show that there were 150 outbreaks in 2009 compared to 242 outbreaks in 2008 and 445 in 2007 these numbers may not represent the actual situation because of frequent under-reporting. SADC, taking advantage of the HPAI surveillance program, managed to improve on ND surveillance and reporting. On the other hand, ND does not seem to be a problem in the commercial sector where effective vaccination is practiced.
### Table 8: Reported Newcastle Disease in SADC Countries 2007-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Outbreaks</td>
<td>No. Cases</td>
<td>No. Outbreaks</td>
</tr>
<tr>
<td>Angola</td>
<td>2</td>
<td>248</td>
<td>5</td>
</tr>
<tr>
<td>Botswana</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>D.R. Congo</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Lesotho</td>
<td>11</td>
<td>857</td>
<td>6</td>
</tr>
<tr>
<td>Madagascar</td>
<td>22</td>
<td>282</td>
<td>40</td>
</tr>
<tr>
<td>Malawi</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Mauritius</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mozambique</td>
<td>4</td>
<td>90</td>
<td>7</td>
</tr>
<tr>
<td>Namibia</td>
<td>14</td>
<td>306</td>
<td>5</td>
</tr>
<tr>
<td>Seychelles</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>South Africa</td>
<td>67</td>
<td>316,398</td>
<td>65</td>
</tr>
<tr>
<td>Swaziland</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>145</td>
<td>3531</td>
<td>43</td>
</tr>
<tr>
<td>Zambia</td>
<td>80</td>
<td>13,299</td>
<td>43</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>25</td>
<td>4,753</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>339,867</td>
<td>242</td>
</tr>
</tbody>
</table>

*Source: SADC Animal Health Yearbooks 2007, 2008 and 2009*

**African Swine Fever (ASF)**

ASF is one of the diseases widely distributed in the SADC region with 10 countries having experienced a total of 110 outbreaks in 2008 with 15,000 cases. Malawi, the Democratic Republic of Congo and Mozambique were most affected, accounting to 38% of outbreaks and 71% of all cases. The disease was reported in 5 SADC countries in 2009, a reduction in reporting of this disease of 50% compared to 2008. A serious outbreak of ASF was reported in 2008 in northern Namibia in an area where the disease did not traditionally occur. This outbreak which nearly wiped out the swine population was introduced from a neighbouring country where the disease normally occurs. The most effective control of ASF is through movement control, stamping out followed by disinfection of premises where pigs were kept.

**Bluetongue**

During 2008, five SADC MS experienced cases of Blue-tongue. In total 78 outbreaks were experienced with 568 cases affecting mostly the most southerly countries of Botswana, Lesotho, Namibia, South Africa and Zimbabwe. South Africa alone accounted for 85% of all outbreaks with 494 cases. Vaccination is the most frequently used control measures to stop the spread of the disease although many cases of Blue-tongue remain unnoticed in traditional farming setting.
**Peste des Petits Ruminants (PPR)**

This disease is an emerging disease in the region with most cases reported in the DR Congo. In 2008, an outbreak of PPR was reported in the Kikwit areas of Bandundu region of the DR Congo. A total of 89 sheep were affected and 69 of them died. In 2009, PPR was also reported in northern Tanzania, but the problem seems to have been resolved now according to OIE WAHID notification reports. Since this disease may soon establish itself in the affected countries, there is an urgent need to increase surveillance in these countries to determine the extent of the problem and the intervention needed.

**Socio-economic Impact**

The major impact of TADs on SADC, as a major livestock and livestock products trading region, is the loss of market and foreign exchange earnings. For example, Botswana and Namibia are export dependent on their beef and a loss of export status has normally disastrous economic consequences. For example, Botswana suffered from the consequences of two major FMD outbreaks in 2008, one in the traditional EU export zone and another in the traditional regional export zone. The outbreaks lead to the suspension of slaughter for export in those zones. Although significant resources were used in order to control the disease, the process of recovery and return to export status has been very slow. Similarly an early 2008 outbreak in one of Namibia’s the traditional regional beef export zone to South Africa lead to the suspension of slaughter and loss of income to the farmers. A further example is Zimbabwe, which has been removed from the EU export status following the FMD outbreak in the early 2000’s. The annual loss to the farmers has been estimated as about $100 million. The situation prevails until now because the disease has not been completely eliminated, in spite of the significant resources being allocated for disease control.

### 2.3.3 Status and impact of other Zoonoses outbreaks

#### Rabies

Rabies is the oldest and most widely distributed zoonosis in the SADC region. In 2008 13 countries reported the disease, with a total of 959 outbreaks and 1,769 cases. Within countries cases were evenly distributed although there were observable areas of hotspots. Only Mauritius and Seychelles did not report the disease. About 71% of all cases were reported from Zambia, South Africa, and Zimbabwe. Zambia alone accounted for 22% of the rabies related deaths. The species most affected by rabies were canines which accounted to 60% and bovine accounting for 26%. The mortalities due to rabies outbreak were mostly in dogs (70%) followed by cattle at 17.2%.

The situation regarding human rabies remains unclear as in all the reports received there was very little mention of human rabies. Only South Africa has kept very good records on rabies. From 1928 to 2007, 515 human rabies cases have been laboratory confirmed in Kwazulu Natal, which is the most affected province with 80% of all reported cases nationwide. It is estimated that between 10 to 30 cases of human rabies are laboratory confirmed every year. Most of these cases occurred among children below 15 years of age who are more likely to be in contact with domestic animals. Zimbabwe has also confirmed 45 deaths attributable to rabies between 2004 and 2005. Angola has experienced one of the most severe rabies outbreak between December 2008 and early 2010 that claimed at least 93 human deaths most of them among children under the age of 15. This figure is believed to be a tip of the iceberg considering the weak surveillance system. In fact, there is a gap as to who should report human rabies between public health and animal health experts.

The main problem in the control of rabies is low dog and cat vaccination coverage in many SADC MS and stray dog control. Wildlife associated rabies in some SADC countries such as Botswana and Namibia is also a serious problem.

#### Anthrax

In 2008, a total of 129 outbreaks were recorded in 9 SADC MS with the highest number of cases reported in South Africa, followed by Zimbabwe. The species most affected by anthrax was the bovine accounting to 61% of all cases. A significant number of wildlife species were also affected accounting to 35.5% and the most commonly affected wildlife species are wildebeest, eland, zebra, kudu, springbok and red hartebeest. Most anthrax related deaths were in wildlife (81%). This disease is endemic in the region and many countries apply vaccination in domestic animals as preferred control method.

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8 Although PPR has been suspected, the disease has never been confirmed by the laboratory (Personal Communication Bouna Diop)
Rift Valley Fever (RVF)

The re-emergence of RVF in several SADC countries including DR Congo, Madagascar, South Africa and Swaziland was considered as a great challenge to the region. The urgency of the matter prompted the SADC to request the OIE to organize a workshop from 16-18 February 2009 mainly to understand the best measures needed to predict and respond to the disease. Observations made on the epidemiology of these recent outbreaks of RVF are that they were associated with heavy rains and in the previous year in Tanzania, most cases were observed in humans. In 2009, there were no major outbreaks except in South Africa where the outbreak is ongoing and affecting different provinces. The suspicion is that the disease is reaching enzootic stability and countries are not reporting new cases. As regard to human cases of Rift Valley fever, there are indications that the Rift Valley Fever virus (RVFV) is present in many countries in Southern Africa.

During a recent outbreak, the South African government has confirmed 186 cases of the viral fever in humans by May 10, including 18 deaths in the Free State, Eastern, Western and Northern Cape as well as the North West Provinces.

In line with the “One Health” concept, countries are strongly advised to strengthen and formalise inter-sectoral collaboration and data sharing, to ensure that the surveillance and control of RVF be followed by rapid response after detection of disease either in animals or humans. All Southern African countries should prepare and update emergency preparedness plans against RVF in accordance with international standards, guidelines and recommendations in particular those of FAO and WHO.

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

Twelve PVS evaluation missions were conducted in SADC MS between 2007 and 2010. Only Angola, Seychelles and South Africa have not yet requested a PVS assessment. The report from the PVS mission in Zimbabwe has not yet been validated and the PVS mission for Botswana was completed in early May 2010.

None of the SADC MS have benefited from PVS follow-up missions, which are usually organized a few years after the initial assessment. Several countries, amongst which Madagascar, Mozambique and Zambia have already benefited from a PVS Gap Analysis mission, but none of the reports is available for dissemination.

The following assessment therefore is based on validated and cleared information pertaining to the following countries: DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Swaziland, Tanzania and Zambia. It is also worthwhile mentioning that some of these missions were conducted using the 2006 version of the PVS tool, which didn’t include some critical competencies of the more recent versions of the PVS tool as e.g. quality assurance of laboratories. Critical competencies are graded from 1 to 5, where 1 stands for no or very basic compliance and 5 stands for complete compliance with international standards.

In the following paragraphs, and in the interest of space, countries will be designated by their ISO codes, as follows:

- LS: Lesotho (conducted in June 2007, report validated in March 2008)
- MG: Madagascar (conducted in June 2007, report validated in February 2008)
- MW: Malawi (conducted in June 2007, report validated in February 2008)
- MU: Mauritius (conducted in January 2009, report validated in May 2009)
- MZ: Mozambique (conducted in January 2008, report validated in March 2009)
- NA: Namibia (conducted in August 2008, report validated in April 2009)
- SZ: Swaziland (conducted in September 2007, report validated in August 2009)
- TZ: Tanzania (conducted in June 2008, report validated in December 2008)
- ZM: Zambia (conducted in July 2008)

Overall, PVS assessments led very often to similar conclusions as to the main constraints veterinary services face in today’s Southern African and global environment. One of them is definitely the unclear chain of command between the Chief Veterinary Officer and his/her field staff, often lost during institutional reforms favouring decentralization of powers to local authorities.

Out-dated and/or inadequate legislation is often perceived as a constraint to effective law enforcement, especially in areas such as food safety, residue control and the use of veterinary drugs. It also contributes to an erosion of the
veterinary profession, with more and more tasks being handed over (or taken over) by under- or non-qualified individuals, such as e.g. in Malawi, where the Veterinary and Para-Veterinary Practitioners Act allows lay personnel to perform veterinary interventions on any farm animal. Finally, any farmer’s compensation plan must be backed by adequate legislation for it to become operational.

Another serious impediment to the development of veterinary services, especially the public veterinary services, is the current (in some cases) and expected (in all cases) shortage of qualified manpower. There is a worldwide tendency whereby young people do not see the benefit of engaging in lengthy veterinary studies, to end up in a profession which is poorly remunerated and suffers from a poor public image, fuelled by the recent international crises of dioxins in poultry, mad-cow disease in cattle, bird flu and (alleged) swine flu. A country like Malawi, with more than 13 million inhabitants, assumes its veterinary authority with mere six public veterinary officers (2008).

Two indirect consequences of this human resources challenge is that supervision of veterinary para-professionals decreases and that new areas of engagement of veterinary services, such as food safety, identification and traceability, registration and control of veterinary drugs and biologicals, animal welfare, aquatic animal disease surveillance and control and wildlife disease surveillance and control are insufficiently exploited and often voluntarily left to other authorities under the Ministries of Health or Fisheries to name but a few. The same applies to some extent to outreach policies to farmers, private vets and other stakeholders, whether through communication or statutory, formal coordination mechanisms. Both are insufficiently developed, except in countries like Namibia or Swaziland. Health accreditation of private vets to deliver public-sector services too is still underutilized.

Funding is generally regarded as inadequate, either in absolute terms, or in relative terms, i.e. to address the wide scope of issues and mandates of a modern veterinary service. Even in exporting countries, OIE-promoted tools such as compartmentalization or containment-zoning are under-utilized and deserve more attention, especially in the light of diminishing financial resources and staff availability.

2.4.1 Human, physical and financial resources

Competencies of veterinarians and veterinary para-professionals: with the exception of countries such as Namibia and Swaziland, where veterinarians’ practices, knowledge and attitudes usually allow undertaking specialized activities as may be needed by the VS (level 4), the competencies of veterinarians in most countries vary from ability to undertake all professional/technical activities of the VS (level 3) to a variable standard that usually allow for elementary clinical and administrative activities of the VS, but nothing more (level of advancement 1 as in DRC and Malawi).

Veterinary para-professionals (from meat inspectors and animal health technicians and nurses to vaccinators and community-based animal health workers) represent a similar pattern of competencies, with the best and most homogeneous competencies found in Malawi, Namibia, Swaziland and Tanzania (levels 3 or 4) and the worst and most heterogeneous competencies found in DRC, Madagascar and Mauritius, where training of this category of staff is almost non-existent and at best, informal (level 1).

Continuing education: in most countries the VS have access to CE (internal and/or external programmes) on an irregular basis but it does not take into account needs, or new information or understanding (level 2).

Coordination capability of the sectors and institutions of the VS (public and private): there are informal or irregular coordination mechanisms for some activities, with an unclear chain of command (level of advancement 2) or at best with a clear chain of command for some activities, but these are not coordinated / implemented throughout the country (level of advancement 3).

Funding: with the exception of (small) countries such as Mauritius and Swaziland, where the funding for the VS is clearly defined, regular, and deemed adequate for their base operations (though not for new or expanded operations; level of advancement 3), most countries regard their funding as either clearly defined, but inadequate (level 2) or not defined at all, and allocated irregularly (level 1).

Contingency funding follows the same pattern as the (recurrent) funding, mostly poorly or not defined and inadequate to cover the actual needs (levels of advancement 1 and 2), with the exception of Mauritius and Namibia which claim that contingency and compensatory funding arrangements with limited resources have been established and that additional resources for emergencies may be approved but that this approval is through a political process (level 3). Only Swaziland is said to have adequate resources which can be released in an emergency situation, through a non-political process on a case-by-case basis (level 4).
The **capability to invest** and develop is regarded as relatively low with either no capacity at all, or at best (level 2) occasional and irregular allocations, mostly provided for by extra-budgetary resources. In Malawi however, the VS regularly secures funding for improvements in operational infrastructure, through extraordinary allocations from the national budget or from other sources, but these are allocated with constraints on their use (level of advancement 3).

### Table 9: Human, physical and financial resources

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<th>Critical competencies</th>
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<td>1.10 Capability to invest and develop</td>
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#### 2.4.2 Technical authority and capability

**Laboratory diagnosis** is inadequate in that it either provides for clinical diagnosis (post-mortem) or only reliable lab diagnosis for a limited number of the major animal diseases and zoonoses. The analysis is performed either domestically or at a foreign laboratory (which requires extra financial resources). This corresponds to levels of advancement 1 and 2. Only Swaziland’s veterinary Services have access to and use a laboratory to obtain a correct diagnosis for diseases of zoonotic or economic importance both present and not present in the country, but known to exist in the region and/ or that could enter the country (level 4).

**Quality assurance** of laboratories, as a critical competency, was only introduced in the OIE PVS Tool in late 2007 and was not assessed in DRC, Lesotho, Madagascar, Malawi and Swaziland. In the remaining countries, quality assurance approaches vary from inexistent (level 1) to scattered: only some laboratories used by the public sector VS are using formal QA systems (level 2).

**Risk analysis** capacity is poorly developed in all countries, where none (level 1) or only a few risk management decisions are taken based on sound scientific evidence (level 2).
Quarantine and border security is better developed in the smaller states it would seem, with Mauritius and Swaziland claiming that VS can establish and apply quarantine and border security procedures which systematically address legal pathways and illegal activities (level 4), whereas another small state, Lesotho, entirely surrounded by the Republic of South Africa, cannot apply any type of quarantine or border security procedures for animals or animal products with their neighbouring countries or trading partners. The same applies to Madagascar (level 1). Intermediate countries either address legal activities only, using international standards or sound risk analysis (level 3) or address these activities without compliance with either best practice in standards or risk analysis (level 2).

Epidemiological surveillance was split up into ‘active’ and ‘passive’ surveillance as a result of the 2007 revision of the OIE PVS tool. Several countries therefore were assessed using surveillance as a single entity, while some were assessed distinguishing the two, hence the level “1 to 2” for example Mauritius (level 1 for passive and level 2 for active surveillance). Overall MS assessed conduct passive and active surveillance for some relevant diseases and have the capacity to produce national reports on some diseases, but not covering all susceptible populations (level 2) or can rely on networks in the field, whereby samples from suspect cases are collected and sent for laboratory diagnosis with evidence of correct results obtained. These VS have a basic national disease reporting system and their active surveillance is applied in all susceptible populations and/or are updated regularly (level of advancement 3). Again, only Swaziland claims to conduct passive surveillance and report at the national level on most relevant diseases. Appropriate field networks are established for the collection of samples and submission for laboratory diagnosis of suspect cases with evidence of correct results obtained. Stakeholders are aware of and comply with their obligation to report the suspicion and occurrence of notifiable diseases to the VS. As far as active surveillance is concerned, it is conducted for some relevant diseases, applied to all susceptible populations, regularly updated and the results systematically reported (level 4).

Early detection and emergency response. Again with the exception of Swaziland (level 4) and to a lesser extent, Tanzania (level 3), most countries claim that the veterinary services have either no field network or established procedure to determine whether a sanitary emergency exists or the authority to declare such an emergency and respond appropriately (level 1) or that they have a field network and established procedures and authorities, but lack the necessary legal and financial support to respond appropriately (level 2).

Veterinary medicines and veterinary biologicals. With the exception of Swaziland (level 3), most countries assessed have at best a limited capability to exercise administrative control (including registration) over the usage, including import and production, of veterinary medicines and veterinary biologicals (level of advancement 2) or must accept that the veterinary services have no control over the regulation of the usage of veterinary medicines and veterinary biologicals (level of advancement 1). This of course doesn’t mean that there is no regulation in place, but it might be entrusted to other authorities or agencies, within the realm of e.g. the Ministry of Health or the Ministry of Trade and Industry. In Mauritius where there is no domestic production of such drugs or biologicals, the import of drugs and biologicals is regulated under the Pharmacy Board of the Ministry of Health, in Namibia the control of medicines and biologicals is administered under The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act from 1947; Medicines and Related Substances Act, 1965; The Medicines And Related Substances Control Act from 2003; and The Prevention of Undesirable Residues in Meat Act, 1991. Furthermore, a Veterinary Oversight Committee has been established to develop new regulations in collaboration with the Ministry of Health. The registration of stock remedies is under the control of the Minister responsible for Agriculture. In Tanzania, the Tanzania Food and Drug Authority under the Ministry of Health and social welfare adopts a merely administrative approach and PVS experts classified the current drugs sales as “totally out of control with practices such as prescription drugs sold everywhere, wholesale, and bad storage of drugs and vaccines”.
Table 10: Technical authority and capability

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<th>Critical competencies</th>
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2.4.3 Interaction with stakeholders

Consultations with stakeholders are genuinely well developed in Namibia and Swaziland where the veterinary services maintain a formal consultation mechanism with stakeholders (level 3), in Namibia foremost with the Meat Board of Namibia and the Namibian Agricultural Union. Most other countries do not engage in consultations with stakeholders (level 1) or engage only in an informal manner, as is the case in DRC, Madagascar, Malawi, Mauritius and Mozambique (level 2).

Accreditation/Authorisation/Delegation is either well-developed or not developed at all. Countries having engaged the services of the private sector in the delivery of certain traditional public sector services are Lesotho (clinical services, artificial insemination and drug distribution), Madagascar (sanitary mandate defined, but applied mostly in remote areas) (level 3) and are envisaged for vaccination campaigns in Mozambique in the near future (level 2). In the other countries, public sector tasks and authorities are still conducted and exerted by public sector personnel exclusively (level 1).

Veterinary Statutory Bodies exist and are operational in Lesotho, Madagascar, Mauritius, Namibia, Swaziland and Tanzania (level 3 or 4), are in the process of being established in Malawi and Mozambique and is still absent in the DRC (level 1). In Madagascar, the VSB deals with private sector veterinarians only and does not include the supervision of veterinary para-professionals (level 3).

Participation of producers and other stakeholders in joint programmes. As for the consultations with stakeholders, these are genuinely well developed in Namibia and Swaziland, especially with regard to producers (farmers) (level 3). In all other countries, producers and stakeholders only comply with, but do not actively participate in programmes (level 1) or are at best informed of programmes and assist the VS to deliver the programme in the field (level 2).
2.4.4 Access to markets

Preparation of legislation and regulations, and implementation of regulations: most VS in the SADC region will concede that they have the authority and the capability to participate in the preparation of national legislation and regulations, but that they cannot implement resultant regulations nationally (level 2). In the DR Congo, even this authority and capability is lacking (level 1) because the DPSA (veterinary authority) is not always actively involved in the drafting process, but rather Ministry-level advisors of the Ministry in charge of livestock. Meanwhile, in Namibia and Swaziland, VS indeed implement resultant regulations nationally (level 3).

Stakeholder compliance with legislation and regulations: poor legislation, conflicting legislation, the lack of legal powers to exert sanitary police measures and inadequate coverage of the national territory make it difficult for the veterinary services in DRC to exert control on stakeholders’ compliance and take repressive or penal measures (level 1). The same scenario, to a lesser extent applies to Madagascar, Mozambique and Tanzania and even small countries as Lesotho and Mauritius, which VS claim that lack of financial and logistical means, along with the lack of prospects for compensation (for farmers) leads to disease events being hidden from the VS, who are in no position to exert pro-active control. In the case of Mauritius, it is stated that compliance with (incomplete) legislation is more a matter of good-will and civic duty on behalf of the stakeholders, than the result of adequate law enforcement. Namibia and Swaziland are again exceptions (level 3) where a pro-active approach prevails. The VS work with stakeholders to minimize instances of non-compliance with animal health and food safety regulations under the VS mandate, and –in the case of Namibia- strict control of movement of animals across the Veterinary Cordon Fence (VCF) is enforced.

Zoning: except for Namibia, which has defined and implemented zoning for FMD and CBPP and attained recognition by the OIE (Veterinary Cordon Fence) and Swaziland which has basically managed to shield off its entire territory from surrounding countries harbouring FMD-infected buffaloes, all other assessed countries can’t claim to be in a position to apply zoning (level 1) or as necessary, can identify animal sub-populations with distinct health status suitable for zoning, but haven’t done so (yet) (level 2).

Compartmentalization: again, except for Namibia where entrepreneurs apply compartmentalisation in quarantine farms, game farms and the pig industry (level 3), little development is recorded in the other countries, where either the capacity is there (level 2) or not (level 1), but where no compartmentalisation systems or integrations exist to date. Even in Namibia, there is no evidence that compartmentalisation has led to international recognition (and hence, exports, commensurate with level of advancement 5).
Table 12: Access to market

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<th>Critical competencies</th>
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2.5 The role of SADC in strengthening veterinary service capacities of MS

Currently there are no specific SADC programs aimed at strengthening veterinary services in MS. At present the strategy used by SADC is the use of institutions in the region to help other members when the need arises. Centres of Excellency are identified in the region to champion certain activities for the benefit of the wider sector within the region. For instance, Botswana was identified as a Centre of Excellency on training of meat inspectors at the Meat inspection Training Centre in Lobatse. Large numbers of SADC students are trained in Lobatse, although intake goes beyond SADC and includes the rest of Africa as well. Through the SADC LDU resources are usually raised centrally to sponsor students from each country to the Centre.

The other area where an institution of excellence was agreed is on the control of tsetse fly where Zimbabwe was chosen and currently Botswana is freely providing her experts on tsetse aerial spraying to the region to plan and manage spraying activities, although project funding comes from countries themselves. Using this approach Botswana experts were used to manage tsetse fly spraying in Zambia in 2009.

It has also been agreed in SADC that countries with veterinary colleges should reserve quotas for students coming from other SADC countries without such colleges.

A system of attachment of staff in each other’s laboratories as a way of capacity building has been agreed, and well resourced labs in the region host staff from other SADC countries as and when the need arises.

In summary, institutions within Member States of SADC are used in various ways to strengthen capacities of each other as one way of using resources cooperatively as envisaged in the Treaty establishing SADC.

2.5.1 Legislative frameworks and harmonization

The SPS Annex VIII to the SADC trade protocol is the only legislative framework governing and harmonizing some veterinary related activities in the SADC region, while in the public health sector the Public health protocol is the only legal instrument.

2.5.2 Coordination of MS veterinary services

Coordination of veterinary services in SADC Member States is done through the SADC LTC which is one of the original technical committees of SADC established when the organisation was founded in 1980. It has been in existence since that time with its focus on trans-boundary animal diseases although its mandate has now expanded to cover other areas.
The LDU acts as a secretariat for a committee of Chief Veterinary Officers of the 15 SADC MS in the region and this committee is commonly referred to as the Livestock Technical Committee (LTC), a well-recognized institution of SADC that submits reports and recommendations to Ministers of Food, Agriculture and Natural Resources for adoption or approval. The LDU does not have any binding legal power over Member States veterinary services and its authority is currently limited to coordination of sectoral activities at SADC headquarters only. The LDU has no legal instruments to enforce resolutions taken by the LTC. The TORs for the LTC are presented in Box 1.

**Box 1 Terms of reference of the LTC**

- Coordination of livestock development activities;
- act as a forum for consolidating regional positions for discussion at Africa-wide and international platforms;
- identification of constraints impeding regional livestock development and trade;
- identification, approval and mentoring of the implementation of projects and programmes that address these constraints; development of sectoral policies and strategies;
- act as a depository of reports and recommendations related to the status of animal health;
- fostering public private partnership development;
- harmonizing animal and animal products movement strategies; fostering collaboration with regional and international organizations;
- promotion of information sharing and networking.

The LTC holds two meetings annually one in April before the OIE General Session and another in November to review the regional animal health situation. A meeting before the OIE General Session also discusses issues going to the OIE General Session with implication on the region. Following this meeting, a common regional position is adopted which is initially presented to the OIE Regional Commission for Africa for further discussion and support before presentation to the OIE General Session. This is, in recent years, being preceded by a preparatory meeting organized by AU-IBAR, in the context of PANSPSO, during which African CVOs consolidate continental positions.

The LTC sometimes takes resolutions to harmonize their operations and progress on implementation of these resolutions discussed at LTC meetings, but LDU cannot enforce these resolutions which are largely non-binding. This is one of the serious weaknesses of the current coordination mechanism.

### 2.5.3 Regional networks

SADC is one of the regions with mature networks that evolved internally and are totally aligned and recognized by higher institutions of SADC such as the Ministers of Food, Agriculture and Natural resources. Currently there are four sub-committees or networks of the LTC that were established in 1997 and are still in operation. These are the Epidemiology and Informatics (Chaired by Namibia), the Laboratory Diagnosis and Research (Zimbabwe), the Veterinary Public Health and Food Safety (Botswana), and the Animal Production, Veldt and Marketing (South Africa).

The conveners of networks are the chairpersons of the networks and the LDU provides logistical and secretarial support to the meetings and these networks meet at least once a year and their reports are presented by various chairs to the LTC. Attendance of network meetings is the responsibility of individual Member States who generally have line budgets in their Ministries for attendance of these meetings. There are also many instances in SADC livestock sector projects and the FAO ECTAD Regional office has facilitated meetings especially if there are emerging animal health issues. Below is a detailed discussion of the key subcommittees of the LTC.

**The Epidemiology and Informatics Subcommittee (EIS)**

The EIS Subcommittee is chaired by Namibia and membership of the subcommittee is derived from Heads of Epidemiology Units in SADC Member States. The subcommittee operates through a set of TOR which mostly focuses on review of regional animal health situation and disease surveillance strategies. As national epidemiologists, the primary responsibility of each member is to act as advisor to his national director on animal disease matters. These epidemiologists are paid by MS themselves, which is different from the PACE model where some national epidemiologists were paid by the project and were not available for other national functions or duties. The epidemiology network broadly advises the region on common strategies for managing TADs and zoonoses, and has adopted a common regional reporting format for animal
diseases. They also recommend regional projects to address agreed priorities and some of the projects that can be traced to the recommendations of this subcommittee are the following:

- Systematic PVS evaluation of the national veterinary services of SADC MS by the OIE was recommended by the LTC;

- The EU (EDF) funded PRINT project framework was based on recommendations of the LTC and was aligned to the Dar es Salaam Declaration. It focused on establishing a regional livestock baseline database for animal production, animal diseases, livestock marketing and infrastructure as well as on training and gap analysis commissioned studies.

- Emergency support for the control of TADs, funded by South Africa and implemented by FAO in six Member States, was in response to the SADC Appeal for emergency relief in 2003 and has focused on emergency control of FMD and CBPP;

- The EU (EDF) funded SADC FMD project was in line with the recommendations of the SADC CVOs and the SADC Appeal for emergency relief in 2003 and focused on FMD control in Zimbabwe and the neighbouring countries plus related studies;

- The AfDB funded SADC TADs project which targets strengthening the epidemiology and laboratory capacity of 5 countries in the northern band of SADC is also a direct outcome of the recommendations of the SADC CVOs and the SADC Appeal in 2003. This project focuses on enhancing the capacity of the 5 countries as well as the SADC Secretariat for the risk management of TADs;

While for a long time the SADC region has had an institutional framework for epidemiological surveillance, with solid coordination, sound reporting, and exchange of information, the operations of this network has been limited to passive surveillance of TADs in line with their national functions and priorities. The network generally does not implement active surveillance except at national level when they have to facilitate a disease control strategy chosen by their countries.

The Laboratory Diagnostics and Research Subcommittee

This subcommittee was also established in 1997 and it is chaired by Zimbabwe. Its membership is derived primarily from national heads of laboratories in SADC MS. The operations of this subcommittee are similar to those of the Epidemiology and Informatics in terms of the relationship with the SADC LDU and the LTC. Their reports also reach the highest structures of SADC for noting and approval where necessary.

The primary function of this subcommittee is to harmonize laboratory procedures and diagnostic tests in the region so as to facilitate trade. They also do country assessment of laboratories capacities through short term consultancies or by selected experts and on the basis of this, some national laboratories which are well resourced are conferred the status of Regional Reference laboratories for certain diseases and tests. Using this criterion, two laboratories one in Botswana and another in South Africa (Onderstepoort Veterinary Institute) have been identified and given the status of reference laboratories for HPAI.

These laboratories then support others with diagnostic materials and expertise on HPAI in the event of a suspicion or outbreak. SADC does not have regionally owned laboratories and as such it does not have any instrument for accrediting laboratories. There are however, some national laboratories that have obtained accreditation statuses through the support of their national governments and these are the National Veterinary Laboratory in Botswana (only certain tests accredited) and the Onderstepoort in South Africa. Regarding OIE initiated twinning, Only Botswana and South Africa have embraced and benefited from this initiative. For Botswana, the approved twinning is on CBPP and HPAI and they are processing another twinning arrangement on trichinella diagnosis. South Africa is accredited for HPAI and NC. Zambia has also initiated twinning at the University of Zambia on Epizootic Ulcerative Syndrome, an emerging fish disease in the region.

The OIE Laboratory and Collaborating Centre Twinning Programme create opportunities for developing and in-transition countries to develop laboratory diagnostic methods, scientific and regulatory infrastructure knowledge based on the OIE Standards. This is achieved through individual Twinning projects. The programme aims at creating more OIE Reference Laboratories and Collaborating Centres in geographic areas that are currently underrepresented (e.g. Africa) and to achieve a better balance in the global distribution of high-level laboratory diagnostic and scientific and regulatory expertise.
The OIE considers the benefits from twinning projects to be sustainable, to remain long after the projects have ended and to lead to the maintenance and further development of expertise and scientific networks in the region and thereby strengthen laboratory/collaborating centre capacity through the OIE Laboratory and Collaborating Centre Twinning Programme. The overall key objective is to build scientific communities in developing countries to fight animal diseases and better prepare for the development of OIE global standards on effective prevention and control of animal diseases, including those related to veterinary products.

The laboratory networking activities mainly rely on meetings and workshops organized on a regular basis; organization of proficiency tests, trainings and exchange of scientists and other laboratory personnel between different laboratories also represent part of these efforts. Participation to regular subcommittee meetings is primarily funded by MS, but in recent years support for network activities and meetings has been given by SADC Value addition projects and the RAHC office, especially the FAO ECTAD Regional office. For example, to face the HPAI crisis in Africa, an ad-hoc working group on HPAI was created in November 2007. It is composed of five SADC MS representative of the two sub-committees directly involved in the HPAI preparedness agenda, i.e. Laboratory Diagnostics and Epidemiology and Informatics. This smaller and very specialized working group organizes two meetings per year. This working group is fully funded by the FAO-ECTAD Regional office in Gaborone, and it does a lot of work in spear-heading the HPAI preparedness agenda in the region.

The other two subcommittees being the Veterinary Public Health and Food Safety and the Animal Production, Veldt and Marketing operate in the same manor but with emphasis in their specialty areas.

In addition to the above networks, there is also a regional farmers association that is recognized in the region and coordinates various commodity agricultural farmer organizations in the region and has well established networks. This is the Southern African Confederation of Agricultural Unions (SACAU), and its secretariat is based in South Africa, but it attends LTC and SADC meetings when relevant issues are being discussed.

Taking advantage of the existence of active networks on epidemiology and informatics supported by another active network on Laboratory Diagnosis and Research, SADC through the LTC has embraced primary elements of GF-TAD, especially early warning, rapid reaction and coordination which can be demonstrated by the presence of the following structures and institution in SADC Region:

- Early Warning- Existence of the Epidemiology and Informatics subcommittee aided by the SADC TADs Project, and the Laboratory Diagnostics, and Research subcommittee
- Rapid Reaction-FMD and Other Vaccines Produced at BVI and OVBP
- Coordination- LTC and its subcommittees, RAHC regional office

The following are considered to be the key factors that have contributed to the sustainability of the EIS and other SADC Networks:

- They are owned by the SADC
- They are not an evolution of a project
- They are funded by SADC Member States
- They stem from a Common Vision of SADC MS of working towards a Common Market, including facilitating the intra-regional and export trade in livestock and livestock products
- The Networks are integrated into National Veterinary Services structures, underpinned by an enabling legal framework
- Each of the 4 Sub-committees/networks has a convener/chairman elected by peers representing MS and is its champion
- The EIS, like other Sub-committees/networks, has Terms of Reference which require, inter alia, its members to meet at least once a year and produce a report to the LTC and Ministers
- The LTC ensures collaboration and coordination among the 4 Sub-committees/ networks

For institutional strengthening in SADC one has to look at ways of enhancing the efficiency of the already existing and working structures as opposed to creating new structures that may not be sustainable in terms of cost and coordination.

One of the recent and key developments in the SADC region has been the establishment of the Regional Animal Health Centre (RAHC) in Gaborone as a collaborative effort between the OIE, FAO and AU-IBAR. Although these organizations continue with their normative functions, their presence in the region and close to the headquarters of SADC has enormously enhanced the capacity and operations of the LDU. In many instances they have contributed both financially and logistically in network meetings and activities. The presence of the RAHC in the region also provides an opportunity for streamlining the GF-TADs and One Health concept into the regional TADs management strategy.
Regional Animal Disease Information Sharing and Communication Mechanisms

In 2001, the LTC took a resolution that identified lack of data on livestock statistics including production and productivity indicator data and trade as a serious constraint to the development of the livestock sector. Then the LTC made a recommendation for the establishment within SADC of a system for the collection and dissemination of livestock disease and production data, in line with both the RISPD and the Dar es Salaam Declaration, the SADC key documents that guide the program and initiatives which set the targets for food security and development and advocate for the establishment of information system to monitor progress towards achieving these targets.

Subsequently the SADC PRINT Project was tasked with the responsibility to establish the Livestock Information Management System (LIMS) at the LDU at the SADC Secretariat and this started in 2005 and was concluded at the end of 2009 when all the 15 SADC MS were connected to the system and their nationals trained on its use.

Some of the key features of LIMS include the integration of technical and socio-economic data, integration with other information systems, such as AIMS, and rapid generation of various reports as required. A holistic data collection system was established that included even producers at the furthest end.

The LIMS application was developed on Microsoft Access Platform using the Visual Basic for application. LIMS is interconnected with ARIS at AU-IBAR and the inclusion of functionality for import and export allows inter-operability with other information systems. The information generated from LIMS is made publicly available through the publication of an Animal Health Year Book on-line on LIMS portal. Stakeholders have also limited access to the LIMS data. Since LIMS has been installed in all SADC MS and training conducted, it is expected that they will supply various livestock data and report disease incidences through LIMS.

The biggest concern however is that at the end of the SADC PRINT Project, no mechanism is in place for supporting LIMS, and currently the SADC TADs Project is acting as its surrogate. Such an abrupt transfer of LIMS without nurturing all countries to adopt and be comfortable with LIMS applications is its greatest threat for its survival and countries may revert back to their national information systems, defeating the noble idea of having a centralized and standardized data entry and capture system in the region. The SADC LDU does not currently have the capacity to operate the LIMS database and backstop it in countries, an aspect which is very worrisome.

Globally all SADC MS, except Zimbabwe (paper submission) are using WAHIS/WAHID for disease notification to the OIE, with most of them having been trained on its use. The level of OIE disease notifications seem to be relatively low and may not reflect the true regional animal health situation. This is due to the fact that the purpose of the reporting to WAHIS is to notify “exceptional epidemiological events” only, while willingly disregarding endemic manifestations of diseases.

For direct information sharing on diseases, there are several fora where discussions on SADC animal health situation take place, starting with various specialist groups or subcommittees which then present their reports to a committee of SADC Chief Veterinary Officers or the LTC and ultimately to the Ministers of FANR. Through SADC add value projects such as the TADs Project, focused discussions are organized in the form of seminars and workshops for detailed discussions and debates.

2.5.4 Emergency Management

SADC does not have an instrument for direct support MS in case of emergencies. In the event of an emerging threat an emergency meeting of the LTC is called to work out a regional strategy for managing the disease and sometimes an appeal document is produced that can be used for donor support through a national or regional project. This was the case with the CBPP and FMD Appeals in the past. The support may be in the form of purchase of vaccines as well or to help with disease surveillance.

At times support is provided in the form of short term technical assistance by one of the Member State with the requisite capacity as evidenced by the Western Tsetse fly common Belt when Botswana provided experts on aerial spraying to support operations in Zambia. Although these are national experts, the principle in which it is done is provided for in the SADC Treaty.

Thanks to the attention given to AHI, the overall capacity of all SADC MS to be prepared for avian influenza related incursions has tremendously increased due to technical and financial support provided by FAO, OIE, WHO, AU-IBAR and WB, EC, USAID, USDA, CIDA, etc. These efforts have been particularly beneficial in countries like Malawi, Mozambique,
Namibia, Swaziland, Zambia and Zimbabwe. A demonstrated ability and the presence of quality (technical soundness, consistent with international standards, feasibility) strategic plans to prevent and control diseases other than AHI (e.g. FMD, RVF, ASF) exist in our view only in Botswana, Namibia, South Africa and Swaziland and to a (much) lesser extent in Mozambique, Tanzania, Zambia and Zimbabwe. Countries such as Angola, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique and indeed, Tanzania and Zimbabwe, could greatly benefit from capacity building in this area. In terms of AHI prevention and surveillance, great strides have been made since 2007, under the auspices of the SADC Secretariat and with the support of –primarily– FAO-ECTAD, but also OIE, ILRI and AU-IBAR, in terms of improved emergency preparedness and early warning, based on international guidelines, adapted to the sub-regional context. However, since no HPAI incursion into the SADC region has been reported to date, this type of preparedness must still be put to the test.

Role of SADC in the prevention and control of TADs, ERADs and other zoonoses

One of the examples of concerted efforts by the REC to address a TADs emergency menacing part of the sub-region, was the regional programme to control the spread of FMD from Zimbabwe, after the 2000 and 2001 outbreaks in that country. Aside from considerable emergency support provided by the Republic of South Africa, through the FAO TCP mechanism, the regional programme (meanwhile a project funded by the EU, SFMDP) only materialised in 2007, by which time the purpose of the project (i.e. mass vaccination in the face of the outbreaks) had become obsolete. Despite efforts to re-orient the project from emergency interventions to more strategic and long-term objectives, it was closed in 2009.

There is little reason to assume that things would develop differently today, as the same mechanisms and approaches are still in place. Efforts by international and regional technical partners to help SADC streamline and harmonise its preparedness for notifiable avian influenza have been fruitful but have not led to stringent and binding agreements on e.g. cross-border movement control or regional bans on trade of poultry products in the case of a highly pathogenic avian influenza outbreak in one of the Member states. This despite the Joint meeting of the Ministers responsible for Agriculture, Livestock and Health on Highly Pathogenic Avian Influenza and Pandemic Human Influenza on 14th August 2006 made a decision urging SADC Member States to ban importation of poultry and poultry products and other birds from infected countries in accordance with the OIE standards and guidelines.

For the future, the approval (already approved in principle, but not in detail) and set-up of the Southern African Commission for the Control of TADs (SACCT) is generally perceived as the right pathway towards more technical decision making when it comes to fight epizootics of a trans-boundary nature. The future SACCT will provide technical guidance and hopefully achieve binding resolutions to be implemented by Member States, but will by default lack the mandate for implementation. Because of this lack of an operational (and to some extent coordination) structure, various projects and organisations have set up (or will still have to set up) their alternative coordination systems and mechanisms for the control of TADs and/or the coordination of their own activities. This however only temporarily resolves the issue of coordination and streamlining of TADs control in the SADC region. There is urgent need for SADC Secretariat to build up its own in-house coordination capacity, whereby the SACCT could be the platform, the RAHC the facilitator and the FANR with its committees the owner of the structure contemplated. The primary objective of SACCT will be to develop TAD control strategies in line with the international standards for RVF, FMD, CBPP and PPR, with a regional overview component.

At the moment, the “one health” concept for the control of zoonoses is seen as the way forward to control zoonoses. Currently however, mechanisms to let human health and animal health structures work together with this approach are absent and will have to be developed for an effective control of zoonoses. The establishment of the SADC Joint Technical Committee on Avian and Human Influenza (JTC-AHI) has demonstrated how difficult it is to bring together national, regional and even international organisations and authorities dealing with human and animal health. It is true to say that the agenda on HPAI and indeed, rabies, are driven by the animal health fraternity, more than the public health fraternity.

Institutional, legal and regulatory frameworks supporting strategic plans

As mentioned above, while institutional linkages are available between international and continental technical agencies and the SADC institutions, ALive and GF-TADs to mention the two main ones, and institutional mechanisms exist to link the SADC institutions, such as the Secretariat and the Troika, to the Member States, very few legal and regulatory frameworks exist, in the forms and shapes that we are familiar with in e.g. the European Union, with EU Regulatory and decision making Committees (European Commission and EU Member States); binding European Union Regulations or Directives that must be transposed into national legislations; regional or national safeguard and compensation mechanisms; common measures to control and eradicated animal diseases at source. SADC’s achievement to establish a regional free-trade area (FTA) and its ambition to achieve a common market by 2015 and a single currency (or monetary union, at least) by 2016
are examples of binding agreements (under the RISDP) of which one would like to see more in the sphere of animal disease control.

**Strategies developed to manage emergencies**

Though not an intra-SADC emergency, but rather a regional threat, the SADC Secretariat responded to the perceived threat of avian influenza (H5N1) by developing the SADC *Regional Avian and Pandemic Influenza Preparedness and Response Plan*, as a follow up to the international and continental mobilisation, spearheaded at the time by the 56th World Health Assembly, that urged countries to strengthen their capacity to prevent, detect and diagnose influenza virus infection and to be prepared to a possible pandemic. The 55th Regional Committee that met in Maputo Mozambique in September 2005 also discussed the Influenza pandemic preparedness in the African Region. From the animal health side, a workshop was held with the support of FAO in Pretoria on 7 – 9 March 2006 to address the threat posed by Avian Influenza to the region. Representatives of directorates of animal and human health services from 13 MS, the SADC-FANR representative, the AUIBAR Director, representatives of FAO and other United Nations agencies, NGOs and operators from the private sector attended the workshop. By the time of the workshop, all Member States had established multi-sectoral national task forces and national emergency preparedness plans (EPPs), which were at different levels of completion and implementation. However, it was recognized, that surveillance, prevention and control strategies were not harmonized between the MS. Furthermore, laboratory preparedness was insufficient in most MS, though the Onderstepoort Veterinary Institute (OVI) and the National Institute for Communicable Diseases (NICD) in South Africa were able to screen and diagnose H5N1.

The workshop then recommended amongst others, that

- The National EPPs should be completed
- A *Regional Emergency Preparedness Plan* (REPP) should be formulated
- The REPP should be implemented and monitored by a *Joint Technical Committee* (JTC)

After this Pretoria workshop the countries completed their NEPPs and forwarded them to the Secretariat where a working group was formed to draft the REPP. The document was presented to the Council of Ministers in August 2006 for approval and thereafter it was presented to the Bamako meeting in December 2006 for pledging of funds.

The Plan referred to above led to the establishment of the SADC *Joint Technical Committee* on Avian and Human Influenza (JTC-AHI) which met three times between 2006 and 2008. The JTC is basically a standing committee of representatives of both animal health and public health authorities from a selection of SADC MS (8 out of 15), completed by a panel of regional and international experts from various technical agencies and projects: OIE, FAO, WHO-AFRO, PIC, OCHA-SA, ILRI, AI.COMM, STOP-AI and others. After consecutive meetings were organised with the financial support of the Belgian Technical Cooperation, FAO-ECTAD and thereafter OIE SRR-SA, the round of meetings stopped due to the inability of WHO-AFRO to sponsor a fourth meeting. Notwithstanding these constraints, the JTC’s first three meetings have been very useful in that they have kick started (and provided the required political endorsement) a string of initiatives, mainly implemented with the support of FAO and AU-IBAR, such as risk mapping exercises, simulation exercises and development of regional surveillance and diagnostic protocols.

**Compensation policies and funds**

The SADC Secretariat responded to the advent of HPAI in Africa, Nigeria, February 2006, with the rapid development of a *Regional Preparedness and Response Plan*, which included a chapter on compensation policy and recommended that countries should rapidly develop their national policies. While the various supports given to countries to review and improve their national Preparedness and Response Plans, such as INAP missions, always pointed out the necessity to have a dedicated compensation framework for HPAI, most countries to date refer to their Animal Disease control act, which usually contains an article on compensation for livestock losses due to notifiable diseases, but with no specific reference to HPAI. The laudable exception is Namibia, though the funds provided are minimal. FAO-ECTAD therefore supported the development of such a specific framework for Malawi, which, once accepted and given legal status, could serve as a blueprint for the region. Currently the Government of Malawi is processing the proposed framework for legal acceptance. More support to speed up the process of developing a regional compensation guideline, is, however, urgently required. Tanzania with the support of FAO ECTAD unit for Eastern Africa is also developing a compensation plan.
2.5.5 Participation of veterinary services in regional and global networks

The issue with which OIE involves itself are at the higher end of the veterinary hierarchy and doesn’t deal with immediate increased productivity through active field veterinary interventions. OIE is not a development agency, it is foremost a WTO recognized international standard-setting body (ISSSB) and its activities and network endeavour to bring all countries to the same (high) level of compliance, irrespective of whether these countries are developing, in-transition or developed countries. Veterinary services from SADC Member countries participate in regional and global networks, knowing that they will have to meet the same level of excellence and sound science than other countries, elsewhere in the world. As a result, the countries which participate most actively in these networks and indeed, in the standard setting processes under the auspices of the OIE, but also of Codex and IPPC, are countries which are involved in (and reap the benefits of) international trade in terrestrial animals and products, such as Botswana, Namibia, South Africa and Swaziland, but also Mozambique, Madagascar, Mauritius and Tanzania when dealing with aquatic animal products. These are the countries that participate actively in the various professional, technical, information systems, and standard-setting networks as OIE, WTO-SPS, Codex, IPPC, WAHIS-WAHID, OFFLU and GLEWS.

Regional networks are seen as an opportunity to inter-connect and debate but are seldom seen as a means to achieve regional trade, rather as a stepping stone to achieve harmonized positions in international trade disputes or international standard setting. The notion that the development of “regional standards for regional trade” is not the way forward is now widely accepted in the region, largely thanks to the OIE’s advocacy. Regional issues, such as the safety of deboned matured beef from FMD infected areas, or the separation of disease statuses in wildlife from those in domestic animals, are discussed at regional level, but always with the purpose to eventually enable changes at international level. Regional fora such as the various SADC Sub-committees, the various events that are organised under the auspices of the Regional Animal Health Centre (RAHCC), but also scientific platforms such as SEARG (Southern and eastern Africa rabies group) are pivotal in reaching regional agreements to better serve the purpose of reaching international agreement.

Discussions also progress because of the pressure groups: instances such as the very powerful Agri-SA farmer’s syndicate (South Africa), numerous consumer groups, environmental protection and animal welfare lobbies in Southern Africa, SACAU (Southern African Confederation of Agricultural Unions) or commodity-based associations such as the Meat Board Namibia (MBN) or the Botswana Meat Commission (BMC) are instrumental in driving the agenda forward.

A specific challenge to the region is the multiplicity of information systems pertaining to animal health, animal production and also animal (products) trade and marketing. There is a great variety of data-base systems and computer systems to be found in the various countries (without neglecting the various languages used: English, French and Portuguese), varying from basic hand-written registry books to simple spreadsheet or database applications, either home-grown (South Africa) or supplied by technical agencies such as FAO (TADinfo). FAO is currently deploying a Digital Pen Technology (DPT) in a limited number of selected countries, which could greatly benefit the speed and accuracy of reporting from field level to higher echelons. Collection and processing of data from these national systems must be fed into three very different regional, continental and international databases, which have little in common in terms of purpose, architecture and spectrum of data and are unlikely to be integrated anytime soon. The regional Livestock Information Management System (LIMS) was developed by SADC on an Access-platform and is a client-server based system with a data-entry interface in each country. Data entered cover animal health, animal production and trade. The continental Animal Resource Information System (ARIS) was developed by AU-IBAR on an Oracle platform and is a client-server based system with a data-entry interface in each country. Data entered cover animal health, animal production and trade. The continental system ARIS should be connected to and fully compatible with the World Animal Health Information System (WAHIS), in particular as far as notification of animal diseases is concerned. The international World Animal Health Information System (WAHIS) was developed by OIE and is entirely web-based, doing away with a client application or local storage of data. Data entered cover animal health only, with annual entries on animal censuses (country annual report).

2.5.6 Cross border harmonization

Cross border harmonisation meetings of veterinary services in SADC occur in the context and under various official bilateral Agreements between Member States. Such Agreements cover a range of sectors where veterinary service is one. In some instances, cross-border harmonisation come in the form of MoUs to facilitate the control of certain animal diseases and an example of such an Agreement or MoU is the one entered into between Angola, Botswana, Namibia and Zambia in the control of tsetse flies in the Western Tsetse Common Belt. The main objective of this MoU was to agree on a systematic eradication of the tsetse fly through progressive eradication from Botswana and Namibia using improved aerial spraying technology that was refined in Botswana. Through this MoU, the tsetse fly has been eradicated from
Botswana and Namibia after two to three years of successive spraying as opposed to the use of insect impregnated traps or targets that was conventionally used for many years without success.

A much broader Agreement occurs among the SADC TADs Project participating countries where several identified activities are done in a harmonized schedule through the Project Coordination Office. Work programs are done in such a way that activities are done at the same time. This Agreement or MoU covers Angola, Malawi, Mozambique, Tanzania and Zambia and it is called the Strengthening of Institutions for Risk Management of TADs in the SADC Region and was signed between the SADC Secretariat and those five countries to allow the implementation of activities in a harmonized fashion.

Official bilateral Agreements exist between other SADC MS that share common borders such as Botswana and South Africa, South Africa and Zimbabwe, Angola and Namibia, and Angola and Zambia just to mention a few. Most of these Agreements on veterinary services are anchored on particular diseases that are perceived as very important in the livestock industry of the participating countries but remain confined in hotspots involving two or so countries. This disease management strategies apply the ecosystem based disease surveillance and control strategies innovated by the AU-IBAR in the fight against rinderpest.

For the management of FMD in their common border areas, Botswana and Namibia have agreed to harmonise the vaccination programs so that it is done at the same time, including the purchase of vaccines from the sole supplier in the region. In this way there is a guarantee that both countries get the vaccines and animals in the same geographic areas are equally protected.

If the establishment of SACCT is approved, a more formal system of cross border harmonisation of TADs management at ecosystems level within the region will be adopted, allowing further improvement in the management of TADs. One of the proposed functions of the SACCT is the facilitation of cross border harmonisation activities to deal with TADs in hotspot areas.

2.5.7 Inter-REC harmonization and coordination mechanisms

SADC, through the proposed but not yet approved Tripartite Agreement, is developing with two other RECs (COMESA and EAC) an agreement for the harmonization of SPS measures. Under Article 29 (3) of the Agreement the Tripartite Member States shall harmonize their sanitary and phyto-sanitary measures and initiate such programs and activities to achieve regional certification of products. Tripartite Member States shall also comply with the WTO Agreement on Sanitary and Phyto-Sanitary Measures in taking sanitary and phyto-sanitary measures. The implementation of this Article shall be in accordance with the provisions in Annex 9 on SPS measures.

Under the proposed Annex 9 all Sanitary and Phytosanitary Measures (SPS) measures which may directly or indirectly affect trade among Member States within the Tripartite region and between the Members States and third countries or regions shall be subject to the provisions of the Annex.

Under Article 2 of the proposed Annex 9, Member States shall abide by the following principles:

- to cooperate in the control of major animal trans-boundary diseases for the purposes of intra and extra Tripartite trade;
- to cooperate in adopting the zonation and compartmentalization outlined in the OIE International Animal Health Code, as strategies to access high-value markets, as an alternative to eradication of trade sensitive diseases from the whole country or region;
- to cooperate in promotion of commodity-based trade in combination with zoning and compartmentalization by:
  - Initiating setting of commodity-specific standards in liaison with World Organization for Animal Health (OIE);
  - Participating in defining an agreement of internationally acceptable levels of protection (ALOP) for particular or specific commodities.
  - Spearheading the promotion of the commodity-based trade approach at all international fora such as OIE meetings (at regional and global), and WTO meetings.
  - Collaborating in lobbying for access to international markets of the region’s food and agricultural products to explore innovative ways of ensuring that traditional livestock production systems comply with minimum international SPS requirements, with a view to enabling them to participate in regional and international trade.
3. Human Health

3.1 Overview of the health delivery systems

SADC MS have identified health as one of the important and priority areas in its regional cooperation and integration plan. The health status of the people of SADC region is considered within the historical, economic and social context of the Region. Poverty, under-development, unemployment, and poor social and physical living conditions have had a negative impact on the health status.

The standard six building blocks of health system strengthening which are service delivery, health work force, information, medical products, vaccines and technologies, health financing are still weak in SADC countries, while leadership and governance in most SADC MS are considered quite good.

There is wide variation in access to health care in the SADC Region. According to the World Bank (1998) the percentage of the population with access to health care in Member States in 1993 ranged from 24% to 99% with a average of 69%. This implies that with some exceptions the majority of citizens of the Region can expect to be treated for common diseases and injuries within one hour’s travel.

The prevalence and high burden of communicable diseases such as HIV/AIDS, Tuberculosis, Malaria and non-communicable diseases, which include diabetics, hypertension, and cancer in the region, have necessitated a collective approach to addressing these challenges. In addition, the threat posed by emerging and re-emerging epidemics such as Rift Valley Fever, Ebola, Polio, Severe Acute Respiratory Syndrome (SARS) and Highly Pathogenic Avian and Pandemic Human Influenza (H5N1) and Pandemic (H1N1) 2009 has underscored the need for a regional response. The impact of this burden is reflected in the level of life expectancy in the SADC region of 39.7 years, which is the lowest in the world.

The unsatisfactory health status in the region is further reflected in high infant and maternal mortality rates. Most Member States have reported maternal mortality ratios that are around 600 deaths per 100,000 live births, which is above the global average of 400 deaths per 100,000 live births. With respect to infant mortality, the average rate for the region is estimated at 70 deaths per 1,000 live births, in comparison to the international average of 59 deaths per 1000 live births. In terms of poverty levels, about 40 per cent of the population of the region lives below the poverty line of US$1 per day.

Still, health systems in most of SADC MS are weak and cannot efficiently deliver the priority interventions, including the ones related to preparedness, response and control of emerging and the epidemic prone diseases including diseases of animal or environmental origins.

3.1.1 IHR (2005) implementation

The International Health Regulations (IHR) - (2005) is an international legal instrument that is binding on 194 countries across the globe, including all the Member States of WHO. Their 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, require countries to report certain disease outbreaks and public health events to WHO. In order to apply IHR in harmonized manner, discussions at high level have been held and strategic orientations given to all SADC MS so that they should all strive to fully adhere to the IHR (2005) requirements which include the strict respect of the time frame indicate below (Fig 3).
Figure 3: IHR Implementation timeframe

IHR Timeframe

Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Assessment and Planning</th>
<th>Implementation</th>
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<tbody>
<tr>
<td>2007</td>
<td>2009</td>
<td>2012</td>
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<tr>
<td>2014</td>
<td>2016</td>
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"As soon as possible but no later than five years from entry into force ..." (Articles 5, 13)

Information gathered from WHO IST ESA shows that only 6 SADC MS (DR Congo, Lesotho, Malawi, Mozambique, South Africa and Seychelles) have participated in the survey conducted worldwide on the implementation of IHR current conditions in each responding country. Detailed information on the IHR (2005) implementation are presented in Annex 2 (Table 17, 18 and 19).

As regards to the core capacity assessment, a project document has been prepared that include a list of issues to be addressed such as resources needed, capacity building, access to medicine and laboratory equipment as well as a list of all priority diseases for the sub region which should included zoonotic diseases classified under neglected diseases. So far, Swaziland, South Africa and Tanzania have completed the core capacity assessment and draft reports are available. Botswana, Lesotho and Malawi have planned to start the process within one month. The remaining countries are encouraged to speed up the process.

In the meantime, each country has been requested to prepare and submit to SADC Secretariat a list of 10 neglected diseases including emerging and zoonotic diseases from which top priorities will be selected by the decision making body to be included on the integrated diseases surveillance monthly reporting forms.

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

As regards to policy development, SADC MS have signed a protocol on health which clearly defines terms and states how country should work together to maintain a good health. However priority diseases defined in the protocol did not include TADs and other zoonotic diseases emphasis.

SADC MS have also developed and adopted a SADC Health Sector Policy Framework in 2000. The overall goal of this Policy is to promote the attainment of an acceptable standard of health for all citizens by promoting, coordinating and supporting the individual and collective efforts of Member States. While the goal and objectives are still relevant there is urgent need to review the IDSR document in order to update the list of priority diseases to include emerging and remerging diseases such highly pathogenic avian influenza, H1N1 and other zoonotic diseases prevalent in the region (Rabies, Rift Valley Fever and anthrax) in order to align it with IHR requirements. Efforts have been in this direction by some countries such as Botswana, Malawi, Seychelles and Zimbabwe.

The WHO Africa Office (WHO AFRO) is finalizing, by August 2010, the revision IDSR technical guidelines in order to align to IHR requirements. In the meantime countries are advised to carry out IHR core capacities assessment which will be incorporated in the national IDSR technical guidelines to be adapted from the regional/global technical guidelines.

SADC has developed a regional plan on epidemic preparedness and response for which the total cost estimate was given but not yet budgeted. Following AHI alert, each country has developed its own plan which encompasses country specificity in term of human and financial resources as well as its epidemiological profile. All country plans have been prepared according to an agreed policy guideline disseminated to all MSs. Resources needed may be quickly mobilized from donor community in case of emergency.
All 15 MS have set up such rapid response teams for AHI, but very few have maintained and broaden their mandates and translated them in a consolidated plan that should include preparedness and response to other public health threats.

As regard to the joint veterinarians and public health teams, Zimbabwe has set up a Cholera Command and Control Centre which included experts from various disciplines and state departments as well as NGOs and private sector. The coordinating role of this centre has facilitated rapid response to the cholera outbreak and is being extended to the ongoing H1N1 and measles outbreaks. This model can be easily adapted for a better preparedness and rapid response to emerging and remerging zoonotic diseases.

South Africa has set up a multidisciplinary team for Rift Valley Fever outbreak response, veterinarians and agriculture experts have been attending coordination meetings along with public health specialists on regular basis, but it is suggested that this collaboration should be strengthened and sustained building on the positive experience on HPAI reported from most SADC MS.

All Member States have adhered to the SADC protocol for health ratified in 2000. The implementation of the protocol is reinforced by 2 instruments which are:

- The implementation plan of the protocol with specific clearly defined strategies and performance indicators.
- The pharmaceutical business plan.

A protocol of cooperation for the preparedness and response to epidemics has also been signed in 1998 by all SADC MS; a follow up of its implementation has to be documented.

SADC mandate is well defined in the protocol for health and the SADC health policy is clear. However, the protocol for health does not specifically address the importance of zoonotic diseases even if the health programme officer at the SADC Secretariat has confirmed that amendment are being proposed to include zoonotic diseases under the heading of neglected diseases. Each MS has been requested to provide a list of 10 such diseases among which regional priority will be determined.

The SADC health desk is understaffed and underfunded. Currently, the health desk is technically supported by a joint technical committee that meets twice a year under rotating chairmanship. In addition, WHO provides continuous technical support through the inter-country support team (IST) based in Harare. The only available staff is overloaded by several activities and with the growing demand and expectations from countries as well as the requirements of new result-oriented type of management, there is an urgent need to strengthen the health desk by recruiting at least 4 new staff members.

To further streamline the process, SADC is in the process of merging the already existing plan for preparation mitigation and response to natural and/or manmade disaster with that of the epidemic preparedness and response plan. A consolidated plan is expected to be finalized by the end of 2010.

3.1.3 Capacity of SADC to support MS in public health delivery systems

SADC mandate is well defined in the protocol for health and the SADC health policy is clear. However, the protocol for health does not specifically address the importance of zoonotic diseases even if the health programme officer has confirmed that amendment are being proposed to include zoonotic disease under the heading of neglected diseases. Each Member states have been requested to provide a list of 10 such diseases among which regional priority will be determined.

3.2 Surveillance and laboratory services

3.2.1 WHO (IDSR) and International Health Regulations 2005 (IHR-2005)

Information on diseases surveillance is not available at the SADC Secretariat. IDSR adaptation and implementation is technically supported by WHO through its Inter-country support team (IST) which receive and summarize surveillance data from SADC MS and monitor the progress made in the implementation process of IDSR and IHR (2005).

There are plans by SADC health desk to create a data base on the priority diseases including zoonoses. Until SADC health office is able to develop a system for flow of information and feedback, information on IDSR implementation could be
obtained from WHO inter-country team. Data available show that H1N1, rabies, anthrax and Rift Valley are the regularly reported diseases in the region and should be included in the IDSR reporting form to be used by all SADC MS.

It is worth to mention that in Botswana, 100% of districts have been equipped to fully implement IDSR strategy. Anthrax and rabies are among the priority diseases to be reported on monthly basis. WHO is supporting the country to improve the surveillance and regular publish a quarterly epidemiological bulletin.

All SADC MS have adapted IDSR strategy except South Africa. IDSR implementation review has been carried out in Malawi. Other countries such as Botswana, Seychelles and Zimbabwe have just completed the revision of IDSR technical guidelines. Other countries have been implementing IDSR and reporting timely and promptly to WHO without copying the SADC Secretariat.

All SADC MS have ratified IHR (2005) and are committed to its implementation, the process of which is ongoing.

All countries have set up vertical surveillance for HIV/AIDS and sometimes malaria and Tuberculosis. Although these diseases are listed among IDSR priority diseases, specific diseases oriented programmes have preferred to have a parallel vertical surveillance system. Efforts are slowly being made to integrate monthly reporting of this disease data on this disease under IDSR priority diseases and reporting.

### 3.2.2 Laboratory diagnostic capacity

The quality of laboratory services varies from one country to another but in general laboratory capacities are weak in most countries and suffer from shortage of qualified staff.

South Africa and Namibia supported the establishment of well-equipped national/teaching laboratories in Zambia, Malawi and Mozambique to serve as reference laboratories. However, these countries still remain without provincial and district laboratories, except a few established purposefully to handle HIV/AIDS related diagnosis. On the other hand these countries have access to the well-equipped and staffed research laboratories in Madagascar and South Africa, for the diagnosis of influenza related sample.

While all SADC MS have reported to have at least one good bacteriological laboratory, virology laboratories are very few and most of them located in South Africa. Early this year Reverse Transcriptase – PCR (RT-PCR) equipment and regents were provided by USAID to Malawi and Mozambique for surveillance of pandemic H1N1 2009. It is expected that use of this technology will expand to other diseases amenable to diagnosis by this method. Likewise CDC has supported setting up a modern molecular diagnostic laboratory in the United Republic of Tanzania that is currently used in diagnosis of H1N1, Rift Valley Fever and Dengue virus.

Some countries have expressed their concerns about the long delay in getting feedback on the laboratory results being sent to the reference laboratory for quality control even for routine diagnosis for those countries still relying on external laboratories.

SADC Secretariat has encouraged the MS to establish new national laboratories or strengthen and rehabilitate the existing laboratories. It is also suggested that veterinarian and public technicians should closely work together.

There is need for training and refreshment courses for veterinary and public health laboratory technicians on basic skills. Although there are reliable internal quality control laboratories in countries such as Botswana and Zimbabwe most SADC MS send their specimens to the external quality control laboratory in South Africa (National Institute of Virology, Johannesburg).

### 3.2.3 Outbreak investigation systems and capacity

All SADC MS have created virtual response teams and received basic equipment and some of them have received adequate briefing. Standard Operating Procedures for various diseases have also been developed and disseminated to all SADC countries. However, there is a wide range of differences in the quality and performance of each country.

All SADC MS can rely on the very well managed WHO contingency stocks and supplies stored in Harare for most common epidemic diseases such as Cholera and H1N1.
3.2.4 Coordination of outbreak investigation with veterinary services

The AHI epidemic has offered opportunities to the veterinarians and the public health specialists to work together along other experts from other sectors. A concrete example was the AHI joint rapid and response training of trainers (ToT), organized by SPINAP-AHI of AU-IBAR and the CDC in Swaziland and Zambia. The training sessions were attended by representatives of Ministries of Agriculture and Health and wildlife experts from twelve countries in the region.

3.2.5 Regional Networks

Networking between countries is not yet established, but efforts are being made to have national laboratories linked and sharing experience and ensuring quality control of the laboratory activities.

Depending on availability of funds, WHO organizes annual meetings of Heads of laboratories in which experiences and data is shared. National public health laboratories participate in WHO Eastern Africa organized meetings.

SADC secretariat has developed a pharmaceutical business plan which has set guidelines on procurement and local production of medicine. There is a surveillance office in each country and drug quality control is mandatory in almost all SADC countries. Very little is done in the vaccine development.

3.3 Epidemic and pandemic preparedness and response measures

3.3.1 Capacity of health institutions, structures and systems

In spite of several resolutions adopted by the World Health Assembly (WHA) and Regional committees (RC), health systems remain under funded and weak in most African countries including SADC Member States. For example, although SADC countries have developed well designed national epidemic and pandemic health plans for HPAI and H1N1, these proposals have not yet received any financial support. Lack of financial resources also impeded the capacity of the MS to use adequately the available guidelines, protocols, acts and reporting formats.

3.3.2 Partnerships

SADC encourages the involvement of the private sector in addressing animal and human health issues. Partnership has been built with NGOs, UN Agencies, USAID, DFID, and AfDB just to mention few. The same partners provide most funding for several animal and human health projects implemented in SADC Member States under SADC technical supervision.

3.3.3 SADC’s capacity to cooperate/interact with MS Public Health Services

There is need to strengthen the capacity of the SADC Health desk in order to ensure a good collaboration, better interaction and coordination with public health services of the Member States.

The official mandate of SADC for the coordination of the public health related issues is well defined in the protocol for health and the SADC health policy.

3.3.4 Disease information sharing and communication mechanisms

The SADC communication strategy needs to be updated in order to incorporate information on zoonotic disease and joint public and animal health messages to the farming communities in the SADC MS using the locally available media outlets. Also there is need from the SADC Secretariat to produce epidemiological bulletins on important diseases.
4. Communication

4.1 Public Awareness

4.1.1 Overview of communication plans/strategies in SADC MS

The regional HPAI preparedness and response plan (PRP) in which communication was designated as one its four pillars (in addition to policy, compensation and human health) was adopted by SADC in August 2006. This important arrangement provided the Member States the opportunity to build the communication strategies/plans of the PRP in the national strategies for the prevention and control of TADs, and lead SADC’s Corporate Communications Unit (CCU) to consider HPAI as one of the major focus issues. However, the involvement of CCU in the HPAI related activities was only limited to public information aspects.

The establishment of a clear and comprehensive communication program for CBPP control was one of the recommendations of the SADC workshop on CBPP which was held from 24 to 26 September 2007 in Dar es Salaam (Tanzania).

Formulation of a communications strategy at the SADC and MS levels was also recommended by the 2008 study on HPAI which was undertaken under the ALive partnership, implemented by SPINAP.

Efforts to formulate a regional communication strategy to guide MS in the development of their own national communication strategies have been made - under the Joint Technical Committee (JTC) on HPAI. A consultancy was fielded in mid 2009 with assistance from FAO to formulate the strategy which would cover not only avian influenza but also other animal and human health diseases based on the “One Health” approach. The objective of this strategy would be to instil a high sense of urgency within the hierarchy (as an advocacy tool), equip countries to implement proven communication interventions, collaborate with other similar initiatives in the region and in countries, build capacity to rapidly identify any disease outbreak, offer targeted “behaviour change communication”, including risk communication.

The commitment of the MS toward developing national communication strategies varied. Whereas countries such as Malawi and Zambia have developed distinct communication strategies or plans related to TADs; others such as Namibia, Mozambique, Madagascar Lesotho, Tanzania and Seychelles developed TADs contingency or national preparedness plans with minimal communication strategy. However, in general all countries with national preparedness plans have integrated elements of communication in their plans. Some Country Specific examples are:

- Malawi: The Avian Influenza Communication Plan that supports the Avian Influenza Emergency Preparedness Plan for Malawi is an integrated animal and human health plan;
- Zambia: The AI Working Group Communication Sub Committee (AIWGSC) was set up in 2006 to be responsible for HPAI communications;
- Zimbabwe: The national Notifiable Avian Influenza Preparedness and Response Plan which was developed by the National Avian Influenza Task Force included well articulated communications strategy.

Overall the development of communication strategies vary from one country to another and embrace varied philosophies and approaches that range from the simplified sensitisation, to the more complex approach that integrates communication with information, education and communication (IEC).

4.1.2 Media campaigns on AHI, ERADs and other Zoonoses

Under the Framework for the Progressive Control of FMD and CBPP and Enhanced Preparedness for Diseases Exotic to the SADC Region (in 2003), as a preliminary zoning exercise, the framework instituted communication and community awareness strategies through training of field staff and farmers, preparation of communication materials, organizing
awareness seminars /workshops. This was part of an outline of key elements for a 15-year strategy to control TADs in Southern Africa.

And ever since the onset of the HPAI global pandemic scare in 2005, many countries in SADC received substantial support from different UN agencies (particularly FAO, UNICEF, WHO) to carry out various communication activities, build local capacities in communication, and raise public awareness on the threat. Consequently, some countries in the region – notably, Lesotho, Zambia and Namibia - held national communication training on HPAI for selected frontline staff in various government levels.

In addition, several media and public information campaigns have been carried out in almost all countries of the SADC through different NGOs, government departments and international development partners. It appears that most of these media campaigns in SADC were carried out during the period when outbreaks were first reported in Africa around 2006 – 2008 and they have since fizzled out as donor-funded projects under which they were supported have also started folding up.

4.1.3 Coordination mechanisms for communication and awareness campaigns

At the SADC Secretariat level, there exists no mechanism or specific unit responsible for coordinating animal health communication or awareness campaigns. This is compounded by the fact that the Corporate Communication Unit of the Secretariat has neither the mandate nor resources to undertake such a role. This competency rests with the LDU ex naturae.

Nevertheless, notable forms of coordination mechanisms have been initiated in the SADC region in the domain of TADs communication. USAID funded behaviour change and communication activities for avian influenza through the offshoot of AED – the Avian Influenza Communication (AI.COMM) non-governmental organization which winded up in late 2009. It is AI.COMM and AED that convened the Global Communication Leadership Meeting for communication professionals and donor partners in Cape Town, South Africa in June 2008. The dual purpose of the meeting was to share and learn from country and regional experiences and to synthesize these experiences to better plan and implement prevention, control and response communications to avian and pandemic influenzas.

SPINAP-AH is another important coordination mechanism in the region. The AU-IBAR managed programme has been providing assistance to various SADC MS covered by the programme (excluding Tanzania, DRC, South Africa and Seychelles12) 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. Among the immediate results of the project was to achieve improved information and communication for the creation of awareness and behaviour change in HPAI prevention and control. The programme has been able to bring together various stakeholders in animal health communication in the region.

Other coordination inputs have come from the OIE in form of a Regional Seminar on Communication for English-speaking countries in Africa, which was held in Gaborone from 22 - 23 September 2009 and which aimed at sensitising veterinary services to integrate communication into their infrastructure. This seminar was attended by OIE Delegates from across Africa, veterinary service officials, communication professionals from both the government communication offices and the media, such as e.g. Agence France Presse (AFP) and The East African (Nation Media) as well as by private sector representatives. An extensive survey was presented on the communication capacity of the veterinary services of the countries participating at the seminar.

At MS levels, several networks and coordination mechanisms on animal health awareness and communication issues are found. For example, in DRC there is a multi-sectoral task force on communication for development, consisting of communication practitioners from different government ministries, UN agencies and selected NGOs. This task force works with networks of communicators on the ground. Within the villages and zones, the health services uses and relies on community animators.

In the prevention and control of TADs, partnering with the mass media is essential and joint actions could contribute to the strengthening of investigative capacity and disciplinary knowledge among media professionals and institutions; considering the impact that such limitations would inflict upon the public. This is critical where the TAD in question has serious implications on public health (as in the case of communicable diseases) and the danger of inadequately researched and disseminated information would pose a serious challenge.

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12Tanzania, Seychelles and DRC are supported by SPINAP under the Eastern Africa Regional Office
4.1.4 Advocacy and outreach

Effective response to TADs requires strong political commitment. National authorities must be sensitized on the threat posed by these diseases and they must play a leading role in all efforts aimed at mobilizing communities for their preparedness and response, hence lobbying for adequate financial support from governments, key partners, regional and international institutions becomes a necessity.

Recent experience has shown that investment and allocation of resources to the efforts to prevent and control TADs or other zoonoses even in instances of outbreaks has been lukewarm except in those instances where the outbreaks had high human fatalities with evolving pandemic threat. This was the case with funding surge on HPAI in the years 2004 – 2008 following the growing cases of human cases in Indonesia, Egypt and Viet Nam. The same was the case of H1N1 global pandemic crisis in 2009. Nevertheless, the need to invest in TADs is a necessity especially considering the livelihood aspect of those they affect most.

This is where advocacy comes in to impress upon Heads of State and Government of the MS as well as senior-level decision makers of the importance of investing and allocating of resources for TADs prevention and response. The second level of advocacy here is to impress upon senior policy makers of the need to prioritize communication principles and methodologies in all programmatic areas and the need to allocate human, technical and financial resources for its activities.

In SADC region, just as other regions, advocacy on HPAI was not an uphill task, as the disease received sufficient attention from national and regional authorities, accompanied by substantial amount of financial inputs from various donors and regional and international agencies such as AU-IBAR, FAO, OIE, USAID, etc. From the highest level, the Council of Ministers approved the Regional Preparedness Plan in August 2006 and instituted the JTC which came to recommend the development of a regional communication strategy that would guide MS in the development of their national communication strategies.

Nevertheless, advocacy will be required to marshal human, financial and technical resources for other TADs (such as FMD, RVF, etc) that are present in the region and to which little attention has been given.

4.1.5 Guidelines and protocols on health promotion

All SADC member states have adopted the health promotion strategy for the African Region at the regional ministerial meetings held in Harare in 2001.

During this meeting, health promotion was defined as a means of increasing individual and collective participation in health action and strengthening programmes through the integrative use of various methods. These methods are combined through comprehensive approaches which ensure action at all levels of society, leading to enhanced health impact.

The development of health promotion is part of the global search for effective means of preventing disease and improving general living conditions. There has progressively been increased recognition of the need to address behavioural, lifestyle (harmful cultural practices) and other underlying socioeconomic, physical and biological factors, referred to here as the broad determinants of health, so as to improve health.

The development of health promotion with a view to increasing social and community control and participation in health started in the 1980s. It was motivated by the recognition of the impact of social, behavioural, economic and organizational factors on health status. Since most health problems have multiple causes, an integrated response to these problems became necessary. Health promotion is any combination of health education with appropriate legal, fiscal, economic, environmental and organizational interventions in programmes to achieve health and prevent disease.¹³

Other health promotion methods include information, education and communication, social mobilization, mediation, lobbying and advocacy. These methods are especially relevant in mobilizing on-health sectors to contribute to health development.

In the general context of ‘One World One Health’, health promotion action contributes towards the achievement of prevention and control of TADs and other emerging diseases by: (a) increasing individual knowledge and skills using health

education and information-education-communication (IEC); (b) strengthening community action through social mobilization; (c) creating environments which are protective and supportive of health using mediation and negotiation; (d) developing healthy public policies, legislation and economic and fiscal controls which enhance health and development through lobbying and advocacy; and (e) reorienting health services by emphasizing prevention and consumer needs.

4.1.6 Level of education / literacy

The link between literacy levels and communication was especially critical before the advent of audio-video technology (radio, TV) 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 SADC 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 more important 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 support to animal health communication at SADC level. The communication unit at the Secretariat in Gaborone is only involved in public health matters. This gap is, however, partially filled through specialized projects such as the PRINT Livestock Project, which aims to establish a livestock information management system (LIMS) designed to facilitate animal production, health, marketing and trade. Also it seems that the intention is to generate up-to-date and reliable information capable of strengthening FANR coordinating role as well as to help in the development of harmonized capabilities, policies and strategies for data collection and animal health information systems at the national and regional level. Also, it is important to note the active involvement of some SADC MS in specific elements of information systems such as TADInfo, AIMS, LIMPS, PRINT, etc. However, these systems are not designed to provide communication products in the strict sense of the term.

4.2.2 Communication units in national veterinary services

The development of capacities in communication by the veterinary services (VSS) in the continent has been closely related to four factors:

- The advancement of the design and the approaches (methodology and objectives) of the concept of agricultural extension services by the governments line ministries and by the financial partners;
- The implementation of programs of fight against major epizootics (eg. Rinderpest, FMD, ASF) which required intensive communication and information dissemination for the eradication of the disease. This facilitated easy allocation of required resources for the purpose;
- The evolution of the capacities (in response to requirements and practices in communication) related to the results of research in communication approaches (particularly those participatory in nature); and
- The progressive setting-up of epidemiological surveillance networks throughout the continent requiring multi ways flows of quality information pushed the actors to exchange and develop their capacities (and needs) for multi-channel exchanges and feedback and contributed to the development of concepts and effective practices of communication.

The communication units are situated in most SADC MS at the HQ of the ministry of agriculture/livestock with a mandate to serve the needs of all sectors. For example, the units provide the veterinary services information support in issues such as awareness rising of the livestock producers on technical and food safety issues, information in a crisis situation.

From the recent OIE survey on the communication capacity of the VSS in Africa, in the SADC region, the following pertinent benchmarks were noted:
• 62% of the VS have an information and/or communication department;

• 55% of the VS completely control the dissemination and circulation of information within their field of competence;

• in the event of a major problem, 87% seek external expertise (national or international) in communication. However, Namibia and Swaziland have not considered this necessary as government communication services perform well;

• 57% of the VS have a website; though most of them are not updated regularly;

• 57% of the VS have a broadcasting slot allocated to them on national radio and television.

As already pointed out above “Overview of the performance of Veterinary Services in the Member States”, shortage of qualified manpower is one of the most serious constraints to the development of veterinary services. Furthermore, the situation will be soon aggravated by the expected retirement waves of professionals who joined the government service around independence period. This will negatively impact on the capacity of the VSs to communicate messages to the farmers and other stakeholders.

4.2.3 Communication Resources

As already pointed out earlier, at the SADC level, resource allocation to animal health communication activities have been minimal, except for those activities that have been carried out in selected regional projects such as PRINT, FAO Regional ECTAD projects, SPINAP-AH. Stand-alone animal health communication funding is yet to take place – hopefully when the SADC TADs communications strategy will be in place as the vehicle to manage these resources.

The region, however, has not been resource-poor in terms of allocation of resources in support of communication activities on TADs. From the 2009 OIE survey, in SADC region only 29% of budget for activities and the production of communication media is provided from opportunistic sources (financed from sources outside national budgetary resources) and most SADC MS allocated some resources under the communication strategies in the national strategic plans they had formulated. This is an encouraging development.

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 agencies provided an immediate technical and financial assistance in various forms to reinforce communication in the veterinary services.

FAO through its ECTAD unit within the RAHC in Gaborone 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); among other resources. FAO, for example, assisted the Government of Mozambique to formulate a strategic communication plan with a budget of USD 1,104,475, which included proposals for developing communication products such as video, radio programmes, leaflets, booklets, posters, etc.

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

Notable resources on animal health communication have also been provided by the OIE which has a vibrant presence in SADC under the RAHC Gaborone. The most notable recent input was through the regional seminar on communication for English-speaking countries in Africa which was organized by the Organization in Gaborone in mid September 2009.

4.2.4 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.

It is generally agreed that the transformative capacity of ICTs facilitates information access and enables community participation; promotes the creation of enabling policy environments, innovative financing and multi-stakeholder partnerships, which are needed to reap the benefits of sustained prevention and control of TADs and other zoonoses.
However, ICTs can be beneficial only if equitable access to them is ensured through multiplatform and language solutions, appropriate applications and capacity-building. In addition, critical knowledge and analytical tools in media and information literacy can empower media and information users to objectively judge the value and credibility of the information supply – which is a critical ingredient in the case of an outbreak of a TAD with serious ramifications on human/public health such as HPAI, RVF (Tanzanian surge outbreak in 2007 where many people succumbed to the infection as well as in Madagascar in 2008/9), etc.

In terms of internet connectivity, the region generally boasts of good internet connectivity though some countries such as Tanzania, Malawi, Mozambique\textsuperscript{14}, etc are still lagging behind as a result of overall country-level infrastructure deficiency. Countries such as South Africa, Botswana, Mauritius, and Namibia have reasonably well functioning internet connectivity. 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 Mozambique and Tanzania.

4.3 Mass media Environment

4.3.1 Media coverage of AHI, ERADs and other Zoonoses

From the study conducted by ALive in October 2008\textsuperscript{15}, it was found that no country looked at the use of regional and even continental media whereas they largely contributed to the information (relevant or not) of the populations once the first outbreaks were announced in Asia and in Africa.

With the international media buzzing with breaking stories on outbreaks in Nigeria and Egypt, the media in SADC countries as well as governments and local authorities marshalled channels of public information for aggressive awareness campaigns through talk shows, panel discussions, posters, etc. Zambia, Lesotho, Mozambique and Namibia are some of the countries that took steps to develop communication materials on HPAI through series of stakeholder planning and consensus-building meetings and workshops.

Coverage of AHI, ERADs and other Zoonoses by local mass media has been affected by the limited capacity of the media in several countries (due to the same reason attributed to limited ICT capacity above). For example, there only weekly newspapers and less than half of the population regularly read newspapers; hence radio is the most popular communication medium.

AI.COMM played a big role in supporting 5 SADC countries (South Africa, Malawi, Zambia, Zimbabwe and Mozambique) in airing public service ads on national television channels, as well as using other array of media for pre-outbreak, outbreak and critical crisis/emergency to post-outbreak communication scenarios.

Most governments also encouraged the public sector broadcast channels to take active role in educating the public on the AI. In absence of regional media houses with geographic reach to the ends of SADC, this task was left to national media channels even though within the region they had cross border reach as dictated by linguistic distribution (as some languages and dialects such as Swahili are spoken in more than one SADC country).

4.3.2 Information Products

From the OIE study conducted on animal health, the following were identified as the main information and communication media used to receive and disseminate information on animal health in Africa:

- internal circulars and communiqués, telephone conversations
- door-to-door visits
- community interactive drama and film shows
- barazas (public meetings),
- stakeholder meetings,
- client consultations
- newsletters

\textsuperscript{14}Although the Ministry of Science and Technology and the Government of Mozambique both have web portals.

\textsuperscript{15}Elaboration of a Regional Communication Strategy for Avian and Human Influenza, and other Priority Diseases\textsuperscript{15}Report by Consultants M. Daniel Grégoire, Pr. Justin Akakpo (ALive October 2008), page 7.
As already mentioned above, in SADC countries aggressive awareness campaigns were mounted following initial outbreaks elsewhere in Africa. These campaigns took the form of talk shows, panel discussions, posters, etc. In countries such as Mozambique, Malawi and Zambia, materials were printed addressing the issue and were distributed to small-holding poultry farmers, extension workers, public health officials, school children among others. In Botswana, posters were produced for the general public on common signs and symptoms of HPAI. In Zimbabwe, a magazine for children was produced to explain to them what AI entailed and this was widely distributed among school children.

In Mozambique, a variety of media products in AIH communication in the country have been achieved through the efforts of NGOs such as Forte Saúde, Tecnoserve, AED, VetAID and the Social Communication Institute. The AHI Communication Group produced radio programmes which were broadcasted by Radio Mozambique and provincial radio stations, and number of posters and brochures. The AED produced and distributed 4,800 kits containing an instructor’s manual and technical guide and two posters.

In Zimbabwe AI.COMM helped to produce materials for print and radio in forms of songs, pamphlets, posters and “Zandi” booklet which was used across the border in Zambia and Malawi as well. In Malawi, in addition to the Zandi booklet, posters, flyers and brochures in Chichewa language, as well as other materials in Bemba and Tumbuka languages were developed with assistance from FAO, UNICEF, CDC and AI.COMM.

In Botswana, leaflets and posters in Setswana were produced by the ministries of health and agriculture under the AI Working Group taskforce and the Department of Veterinary Services, for the general public, poultry farmers and agricultural extension workers. Similarly was done in Lesotho where two leaflets in Sesutu were produced by the health education division, Department of Veterinary Services and UNICEF, targeting the general public and poultry farmers.

In addition, several studies with robust components or outputs in communication have been undertaken in the region. Among these include: HPAI Surveillance Guidelines for Backyard and Free Range Poultry Farming Systems in the SADC Region (FAO, July 2009), SPINAP AI Communication Trainers’ Manual (Draft, AU-IBAR October 2009), Bio-Security Assessment, A Knowledge Attitude and Practice (KAP) in Zambia (UNICEF).

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

A review of the status of AH communication networks and the involvement of NGOs in these networks within the SADC region reveals an encouraging picture. Several NGOs have worked side by side with other partners in ensuring that information and communication on various animal health issues prevalent in the SADC region are sufficiently addressed, even though most of them have shown a leaning towards HPAI – certainly constrained by donor conditions.

In Zambia the NGO Coordinating Council (NGOCC), a network of civil society organization leading the struggle against gender inequalities is working with community-based organizations (CBOs) and women who are into small scale poultry and backyard farming. Nonetheless, this critical group is not part of the campaign team to create awareness and prevent an outbreak of HPAI in the country. In addition, AI.COMM implemented courses and distributed some educational materials whereas AFRICARE NGO supported some of the training in communication for some frontline workers including representatives of poultry farmers and fowl sellers in some selected provinces in the country.

In Mozambique, a network of NGOs such as Forte Saúde, Tecnoserve, AED, VetAID and the Social Communication Institute has been quite beneficial to the communication activities on animal health in the country. These NGOs helped in the government’s efforts to provide appropriate public information in the country that have the lowest literacy level in the region.

In Zimbabwe, the main NGO involved was the AI.COMM. This NGO was a vibrant supplier of information and communication services in the region with activities in countries such as Zambia, Namibia, Zimbabwe, Malawi, and Mozambique prior to its dissolution in 2009.

As already mentioned, SPINAP programme has been instrumental in building a network for animal health communication practitioners among the participating SADC MS. Under the programme, a workshop was held
in August 2009 in Gaborone to take stock of what has been done on AHI communication. A follow-up workshop for training of trainers in AHI communication was held in Namibia from 30 November to 4 December 2009. During this workshop, most of the countries reported having put in place a communication strategy.\textsuperscript{16}

From the foregoing, it can be said that the involvement of media and communication networks in the design and implementation of the communication strategies is key to achieving success as these networks have long and sustained contacts with local communities. As radio is the most diffused and accessible form of communication in most parts of Africa, and particularly popular among the rural folks, networks of community radio such as AMARC-Africa\textsuperscript{17} should always be brought on board when designing such strategies as well as in capacity building activities (workshops, training in communication).

\textsuperscript{16} This was as regards the 11 SADC SPINAP-AH participating countries which exclude DRC, Seychelles, Tanzania (all managed from Nairobi) and South Africa (non participant).

\textsuperscript{17} AMARC is the French acronym for World Association of Community Radio Broadcasters, based in Montreal, Canada but with regional offices in every continent. In Africa, the office is in SADC region – South Africa. They help community radios in capacity building, developing radio programmes, technical specifications for rural radios, networking, etc.
5. Coordination

5.1 Sectoral coordination in SADC

The various sectors are coordinated at the Secretariat through specialised units with responsibilities to support projects and to implement the related protocols or declarations. For example, the Livestock Development Unit (LDU), one of four units at SADC’s directorate of the Food Agriculture and Natural Resources (FANR) provides support to projects and to the implementation of tasks related to the Declaration on Agriculture and Food Security. The Unit is, however, staffed by only one Program Officer (livestock/TADs) and an Administrative Assistant.

On the other hand, the implementation of the Public health is through a well structured Health Sector Co-ordinating Unit headed by a director and received complementary assistance from qualified and well experienced personnel as needed. The Unit received policy, strategy and technical guidance from three oversight and TA bodies, namely the Health Sector Committee of Ministers; the Health Sector Committee of Senior Officials; and the Technical Sub-Committees.

5.2 Relationships of SADC with MS

The relationship between SADC and Member States, at technical level, is the responsibility of the SADC National Committees (SNC). These committees are responsible for coordinating SADC program at MS level. However, in a recent survey in 2007 it was reported that SNC are either underdeveloped or non-existing.

5.3 Operation modalities of existing coordination mechanisms

The LDU serves as a secretariat for the Livestock Technical Committee (LTC) which is constituted by the 15 Chief Veterinary Officers and/or directors of livestock in SADC MS. The LTC is one of the original institutions (Sectors) of SADC and was formed in 1980 to address trans-boundary animal diseases and promote regional cooperation in livestock development. SADC has since evolved into a community in pursuance of regional integration as the key goal. The mandate of the LTC has since changed from being a disease control agent to a wider role of promotion of animal health, livestock development and trade in livestock and livestock products. The LTC is supported by four sub-Committees (regional networks); Epidemiology and Informatics; Laboratory Diagnostics and Research; Veterinary Public Health, and Animal Production, and; Veldt and Marketing.

LTC coordination meetings are funded in part directly by the Member States, and in part by the Secretariat. Generally there are two meetings per year, one before the OIE General Session in April and the second is held in November. Because many animal diseases are endemic in the region, LTC meetings are predominantly dominated by animal health topics. Also trade has become a very important topic, especially for the States who observe high animal quality standards and are able to export to international markets such as the European Union (EU).

The LTC reports go to Agriculture Ministers and operates under broad Terms of Reference that include the following: Coordination of livestock development activities; act as a forum for consolidating regional positions for discussion at Africa-wide and international platforms; identification of constraints impeding regional livestock development and trade; identification, approval and mentoring of the implementation of projects and programmes that address these constraints; development of sectoral policies and strategies; act as a depository of reports and recommendations related to the status of animal health; fostering public private partnership development; harmonizing animal and animal products movement strategies; fostering collaboration with regional and international organizations; and; promotion of information sharing and networking.

The LTC, which was formed by a decision from the SADC Council of Ministers, is well recognized. However, and in spite of the fact that it was properly established under the SADC Treaty, same as the FANR Directorate, it has not yet developed legal instruments that requires the Member States to abide by its collective decisions and resolutions. On the other hand, in spite of the recent reorganisation of SADC that lead to regrouping its more than 20 bodies into only four central directorates, the functions of LTC continued, specially due to its strategic nature in TADs control and trade promotion.

The LTC meetings are chaired by a senior representative of the SADC MS on rotational basis annual. However, the Sub-committees have permanent chairs selected on the basis of their national strengths and ability to help other Member States.
5.4 Coordination with the private sector and other stakeholders

SADC coordination mechanism allows wider stakeholder participation in its sectoral and cross-sectoral functions. For examples, farmers’ organizations such as the Southern African Confederation of Agricultural Union (SACAU), Botswana Agricultural Union, private veterinarians, commercial firms and other specialized groups participate in functions organised by the SADC Secretariat and, at instances, take leading roles in some specific issues. Also, vaccine and drug producing firms and institutions regularly attend SADC LTC meetings and give updates on vaccine situation in the region. For example, the Botswana Vaccine Institute (BVI) is a regular participant who offered, at several occasions, free FMD vaccine samples, transportation, testing and free technical back-up to SADC member countries.

5.5 Coordination with other RECs

There are two inter-REC coordination and integration mechanism that involve together several RECs: The Tripartite Agreement between SADC, COMESA and EAC, and the Inter-REC Coordination Committee (IRCC) composed of IGAD, COMESA, IOC, EAC and SADC.

The Tripartite Summit of the COMESA-EAC-SADC Heads of State and Government, held in Kampala in 2008, developed plans to establish a single market and to enhance integration. The three RECs agreed in November 2009 on a plan of action to establish an enlarged free trade area (FTA) by 2012, covering 26 countries. A Memorandum of Understanding on Regional Cooperation and Integration among the three RECs was developed for signature at next Tripartite Summit. The MoU features cooperation in trade liberalization, customs cooperation, establishment of an FTA, enhanced movement of business persons, labour and services; financing and implementation of joint infrastructure programs; joint programs for agriculture development and food security; and close collaboration in preparation of common regional positions and strategies in multilateral and international trade fora.

Examples of the potential achievement of Inter-REC coordination could be noted from the ongoing progress by the Tripartite Agreement in which the three RECs are addressing the harmonisation of SPS measures. Under Article 29 (3) of the proposed Agreement, Member States shall harmonize their sanitary and phyto-sanitary measures and initiate such programs and activities to achieve regional certification of products. Tripartite Member States shall also comply with the WTO Agreement on Sanitary and Phyto-Sanitary Measures in taking sanitary and phyto-sanitary measures. The implementation of this Article shall be in accordance with the provisions in Annex 9 on SPS measures. Furthermore, the Tripartite Agreement Member States shall abide by a number of principles such as:

- cooperation in the control of major animal TADs for the purposes of intra and extra Tripartite trade;
- cooperation in adopting the zonation and compartmentalization outlined in the OIE International Animal Health Code, as strategies to access high-value markets, as an alternative to eradication of trade sensitive diseases from the whole country or region;
- cooperation in the promotion of commodity-based trade in combination with zoning and compartmentalization by: setting commodity-specific standards in liaison with OIE:- participation in defining an agreement of internationally acceptable levels of protection (ALOP) for particular or specific commodities;
- spearheading the promotion of the commodity-based trade approach at all international fora such as OIE meetings (at regional and global), and WTO meetings;
- collaborating in lobbying for access to international markets of the region’s food and agricultural products, and;
- exploring innovative ways of ensuring that traditional livestock production systems comply with minimum international SPS requirements, with a view to enabling them to participate in regional and international trade.

The Inter-REC Coordination Committee (IRCC) serves as a forum in which COMESA, EAC, IGAD, IOC, SADC and the EC, 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 will contribute to the optimal use of scarce resources, national and regional programming and help in ensuring national/regional dialogue and coherence, Annual regional forum of the
NAOs/RAOs/Ministers of Trade of all the IRCC members will be held preceded by a well prepared technical level meeting.

The IRCC is comprised of ordinary members and members invited on an ad hoc basis and observers. The members are comprised of:

- The heads of the regional organizations (COMESA, EAC, IGAD, IOC and SADC) or his/her representative, accompanied by a maximum of two staff members of each organization;
- Representatives of the European Commission and the concerned EC Delegations;
- Representative of the ACP Secretariat;

The AU and other partners are invited on an ad hoc basis to an IRCC meeting.

The IRCC members ensure that decisions of the IRCC are endorsed by their respective policy organs and ensure coordination with their respective MS.

The IRCC is chaired by one of the Regional Organizations and is held for one year and is rotate in alphabetical order. The secretariat assisting the IRCC is based at the COMESA Secretariat and serves the rotating presidency.

5.6 Capacity Development

There is urgent need to enhance the capacity of LDU in order to respond to the expansion of SADC membership and programs, and to address the emerging needs of SADC’s newly centralised structure that receives less resources from the Member States compared to when LDU functions were decentralised. For example, some of the function of LDU’s sectoral coordination used to be delegated before centralisation to the regular staff resources in each country.

Strategies to supplement and enhance the capacity of SADC LDU, depending on the issues or tasks:

a) the establishment of Sub-committees chaired by the Member States of SADC who are willing to provide additional support to LDU, to convene meetings, and to produce reports.

b) delegation of certain activities to key project officers, depending on the issues and problems under consideration in the sector who operate under LDU and are housed at the Secretariat. Examples are on-going TADs project, and the closed FMD and the SADC PRINT Projects

c) Secondment of experts from willing/capable Member States.

d) Establishment of programmes that could provide support to the LDU and which aims to be instrumental in enhancing regional integration and harmonisation of services such as the proposal for the establishment of the Southern African Commission for the Control of Transboundary Animal Diseases (SACCT)¹⁸.

5.7 Inter-sectoral collaboration (Public Health, Veterinary and Wildlife Services)

Inter-sectoral integration is likely to be enhanced through the design and implementation of Joint programs that address diseases that affect livestock, wildlife and humans. A living example is SADC’s Joint Technical Committee on Avian and Human Influenza (JTC-AHI). The committee was multi-sectoral representing agriculture and human development disciplines (animal health, public health, insurance experts, health/livestock economists, epidemiologists, customs experts, legal experts and wildlife scientists) within the FNAR and Human Development and Special Programmes (HDSP) directorates. Opportunities to explore and understand the feasibility and merits of such joint programs have been made to SADC professionals through, for example an FAO/ECTAD supported simulation exercise in Zambia. Equally interesting is the Southern and Eastern Africa Rabies Group (SEARG), a multi-disciplinary network comprising experts from different fields.

¹⁸The SACCT is expected to be a technical arm for LDU on TADs control and the decision on its location has not yet been made and was a subject of discussion at the recent LTC meeting in Gaborone, Botswana. The Commissioners are the 15 CVOs from the SADC Member States. The AU-IBAR, OIE and FAO will have an observer status in the Commission.
6. **Partnership**

The SADC enjoys a long history of collaboration with a diverse and very supporting international cooperating partner (ICPs) community. The partnership extends to all aspects of economic and social development at the strategic, political and technical fronts, SADC partners include the “traditional” donor community (e.g. UN) and the newly emerging partners for the region such as China, Russia, Brazil, etc. The ICPs provide the bulk of the public investment (development) funds for regional actions, while the SADC MS provide the necessary funds for the SADC Secretariat’s operational budget. Under the present partnership structure the amount of contribution earmarked in 2009 by the traditional 19 funding partners (OECD, UNDP and ADB) amounted 1.3 billion Euro in loans and grants (Fig.4) for use in 9 thematic areas (Fig.5), which are sometimes indeed thematic (e.g. water) and sometimes the thematic group reflects the institutional responsibility (e.g. directorates FANR and TIFI).

Figure 4: Actions per donor as per SADC donor matrix, last update Nov 2009\(^\text{19}\)

\[^{19}\text{The overviews provided in the donor matrix, such as the graph on individual donor contributions above and the contribution per thematic group on the next page do not fully align to the data provided in the main matrix. Discussions with the SADC Secretariat responsible for ICP coordination did not clarify why this was the case.}\]
As a major aid receiving community, SADC is directly influenced by the events and developments in the ICP scene. Some examples are listed below:

- The year 2000 declaration by the United Nations (UN) of the Millennium Development Goals (MDGs) as a monitoring framework for progress on key development indicators.
- March 2002 Monterrey Consensus that called on (i) developing countries to strengthen their commitment to policies and institutions that can stimulate growth, reduce poverty and achieve the MDGs; and (ii) developed countries to provide more and better aid as well as improved trade and debt policies.
- February 2003 Rome Declaration on Harmonization of Donor Practices for Effective Aid Delivery
- February 2004 Marrakech Memorandum on Managing for Results
- March 2005 Paris Declaration on Aid Effectiveness
- The 2005 World Summit
- April 2006 Windhoek Declaration
- The 2008 Accra Agenda for Action

### 6.1 Assistance to SADC in control of TADs and zoonoses

A number of interventions to strengthen the capacity of SADC Member States to prevent and control TADs were recently implemented, or are under implementation. The most prominent are:

- **Foot and Mouth Disease (FMD) project**, funded by the EC with a contribution of €12.6 million for 41 months (2006-2009) (initially planned for 66 months). The project aimed at enhancing the capacity of all SADC Member States, in particular Malawi, Mozambique and Zimbabwe, to control and manage FMD in order to reduce the spread of the disease and its negative impact on both livestock producers and intra/extra regional trade of livestock and livestock product.

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20 FANR 23%, TIFI 20%, Other (18%), Water (16%), capacity development (14%), HIV/AIDS (4%), Energy and Cross-Cutting (2%) and Transport (1%).
• **Promotion of Regional Integration in SADC Livestock Sector** (PRINT) project was funded by the EC with a contribution of € 7.9 million for five years (2005-2009). PRINT was designed to support the RISDP and more specifically its policies of regional livestock sector integration and sustainable production. SADC’s policies for the livestock sector are to increase livestock productivity and promote livestock based industries, improve livestock management practices and promote, harmonize and apply effective regional animal disease control measures. Within the Food, Agriculture and Natural Resource Sector, PRINT supported the establishment of a Livestock Information System, Policy Development, and the establishment of a well trained network of livestock specialists.

• **Strengthening Institutions for Risk Management of Trans-boundary Animal Diseases (TADs) in the SADC region**, funded by the African Development Bank (AfDB) with a contribution of US$ 21.6 million for five years (2007-2012). The intervention aims at enhancing livestock as a tradable and safe commodity through assured animal health, with special focus on improved capacity for detection, identification, monitoring and surveillance of TADs in five countries (Angola, Malawi, Mozambique, Tanzania and Zambia) of SADC. Under the project, national virtual centres (NVC) have been supported as mechanisms for promoting inter-institutional collaboration around common objectives of implementing activities and ensuring the quality of veterinary services in the target countries. Also an information management system (AIMS) is being developed within SADC Secretariat, with the aim of providing support to planning, policy decisions, disaster preparedness, emergency interventions, and water management. The support to control TADs is very well aligned to SADC’s goals and objectives to increase economic growth and to reduce poverty and to improve safety, quality and food security through regional economic integration, trade liberalisation and co-operation.

• **Agricultural Productivity Programme (MAPP)** is a multi-country programme that aims to improve productivity of small farmers including livestock producers.

• **Support Programme to Integrated National Action Plans (SPINAP-AHI)**, which supports the implementation of the Integrated National Action Plans to prevent and control Avian Influenza, and the

• **Pan-African Support for participation of African countries in Standard-setting Organisations (PAN-SPSO)**, which encourage and support participation of MS in the SPS-setting processes.

**6.2 Coordination mechanism between SADC and technical and financial partners**

In order to effectively implement the SADC Common Agenda as outlined in the RISDP and SIPO strategies, SADC and the International Cooperating Partners (ICPs) have developed a partnership. The Partnership is outlined in the 2006 adopted Windhoek Declaration (WD), which provides a structure for effective dialogue between SADC and ICPs and guides cooperation between SADC and ICPs towards the achievement of SADC’s socio-economic development.

The WD commitments (Box 2 in Annex 2) outline the extent and benefits from the collaboration between SADC and the ICPs. A number of these commitments will also benefit the Integrated Regional Coordination Mechanism for TADs and zoonoses for the SADC region. Overall, the commitments could offer good management principles relevant to the IRCM. However, the following key commitments are crucial for successful IRCM implementation:

• Exercise leadership in developing, implementing and monitoring the regional development agenda through broad, consultative processes (including the participation of civil society and private sector).
• Develop systems that allow for accountable and transparent management, including result-based monitoring and evaluation.
• Intensify efforts to mobilise internal resources, and create an enabling environment for public and private investments.
• Strengthen the linkages between regional and national development strategies.
PART III: CONCLUSION AND RECOMMENDATIONS

I. CONCLUSION

SADC has well established coordination mechanisms for livestock, public health and wildlife sectors with a long history dating as far back as the 1980s. The regional sectoral coordination mechanisms are facilitated by protocols (Public Health and Wildlife) and declarations (Agriculture) that guide and define the obligations of each Member State. However, the noted absence of a specific protocol governing the Agriculture/Livestock sector(s) limits the enforcement of relevant and necessary Community decisions on animal health related issues. Also, the lack of formal inter-sectoral collaboration is regarded as a weakness which should be addressed.

**Sectoral meetings** are directly funded by SADC Member States themselves while the Secretariat funds logistical and administrative costs of meetings.

**Sub-sectoral technical fora** have also been established to allow technical debates on emerging issues and operates in the same manner and funding mechanism as the sectoral meetings. This approach, which ensures ownership and sustainability of the mechanisms, should be maintained.

The existence of sectoral mechanisms and the experiences gained through the Joint Technical Committee (JTC) on Avian Influenza provide a unique opportunity for the implementation of an integrated regional coordination mechanism for TADs and Zoonoses.

Over the years there has been an erosion of capacity in the Secretariat for effective coordination of livestock matters and TADs and as such, the Livestock Technical Committee (LTC) has agreed to establish within the SADC Secretariat the Southern African Commission for the Control of Transboundary Animal Diseases (SACCT) to complement the operations of LDU.

SADC has developed a regional framework for the management of TADs that defines animal diseases and zoonoses into strategic, tactical and exotic. Such definition is critical for resource prioritization, focused interventions and improved coordination at the regional level. Considering that SADC is a net importer of livestock and livestock products, the above categorization is a critical tool for assessing import risk management, particularly in relation to the possibility of high likelihood of incursion of various TADs and zoonoses from outside the region.

Member States are expected to report all animal diseases on a monthly basis to the SADC Secretariat through a Livestock Information Management System (LIMS). In addition to animal diseases LIMS captures also data on livestock production and marketing which are important for risk assessment. However, additional collaborative efforts are required from Member States to ensure that the region reaps more benefits from the reporting process and more efforts are required to provide timely feedback for action.

There is paucity of information on health matters at the SADC Secretariat. Also there is no database on epidemics and zoonoses. This is happening in spite of the existence of a public health program coordinated by a Unit within the Directorate of Human and Social Development. These issues have been recently addressed by the SADC Ministers of Health, who agreed to establish reporting mechanisms to WHO and SADC Secretariat and to ensure that a database on priority diseases (including emerging diseases and trans-boundary) is established. However, there is need to clarify how the flow of information will be channelled and how feedback will be provided to Member States and other stakeholders.

The existence of international partners/collaborators such as the OIE and FAO and AU-IBAR under one roof (Regional Animal Health Centre) and working harmoniously with each other and the SADC Secretariat provided excellent support to the region that is highly appreciated.

Implementation of the International Health Regulations (IHR, 2005) by SADC MS is at different stages. There is need to hasten the process in order to meet the agreed deadline (2012).

The SADC Protocol on Wildlife Conservation and Law Enforcement recognises the importance of trans-boundary natural resource management and the formation of Trans Frontier Conservation Areas (TFCAs) as an important tool for sustainable management of biodiversity. The TFCAs are likely to expand the interface and intensify interactions between livestock, wildlife and humans, and therefore could pose serious challenges to the attempts of controlling TADs and...
Zoonoses, particularly FMD. The negative consequences of such threats to livestock industry competitiveness and trade opportunities could, however, be mitigated by improved diseases surveillance at the interface, greater inter-sectoral collaboration and strengthened capacity especially of the wildlife health services.

Assessment of the **Performance of Veterinary Services (PVS)** in the SADC countries has revealed the relatively low level of most critical competencies. All countries are urged to develop and to implement corrective measures on the identified weaknesses in order to improve the performance of their services. Also the **PVS Gap Analysis** exercise needs to be completed in order to assist the MS to seek internal and external resources of soundly developed investment packages.

All SADC Member States have integrated elements of **communication** in their national preparedness plans for HPAII. Furthermore, most SADC countries (62%) have communication units in their veterinary services. However, in order to allow the Secretariat to produce coordinated communication messages, it is important to develop a Regional level strategy capable of addressing, in addition to avian influenza, other animal and human diseases in accordance with the “One Health” concept.

Overall, **sectoral coordination** in SADC region is well established and functioning satisfactorily. However, there is need to embrace inter-sectoral collaboration, revamp capacities in the Secretariat, develop integrated disease surveillance, strengthen wildlife health services, and establish public health information system at regional level, similar to LIMS.

### 2. RECOMMENDATIONS

The stocktaking and the analysis conducted desk review, dialogue with national and regional stakeholders and a consultative workshop held in Gaborone on the 23-24 April 2010 with representatives of 13 Member states. The following recommendations are based on the findings of the team:

1. **To promote formal multi-sectoral and formalized technical advisory fora at SADC Secretariat and MS levels, to manage risks of infectious disease at the human-domestic animal-wildlife interface, through:**
   - the establishment of regular inter-sectoral meetings of representatives of Units dealing with Livestock, Public Health, Wildlife, Natural resources in the SADC Secretariat. The main objective of these meetings will be to share technical information generated by technical committees or sub-committees (e.g. LTC), develop common understanding of issues affecting the interface, and provide guidance to MS and to the SADC Directorates;
   - the enhancement of the capacity of the Secretariat for integration of wildlife health issues into the Regional animal health agenda;
   - Continuous focus on identified priority TADs (FMD, CBPP), AHI and other zoonoses (Rabies). Also, considering their importance in SADC region, RVF and trypanosomoses should be taken into account.
   - Using the national disaster platforms as a possible configuration at the MS levels.

2. **To strengthen the capacity of the SADC secretariat to effectively coordinate livestock related activities, through:**
   - Strengthening the LDU resources and capacities. The funds needed for this purpose should be mobilized sought from SADC core funds or from donor-supported projects.

3. **To strengthen the capacity of the Secretariat to generate and disseminate integrated information and epidemiological data on human health, animal health, livestock trade (cross-border and international), wildlife (trade, production, disease) through:**
   - an increased inter-operability of different information systems (LIMS, AIMS,) and having a dedicated person collating, analyzing, compiling and disseminating reports.

4. **To develop a protocol governing the Livestock/Veterinary sector**

5. **To establish an M&E unit within the FANR Directorate**
6. To establish focused organ (e.g. SACCT) for the integrated management of TADs and zoonoses with some level of legal backing for Member states.

7. To establish adequate measures to ensure long-term sustainability of TAD and zoonoses control and prevention programs at the MS and Secretariat, through:
   - the provision of sufficient national contributions;
   - the development of capacity building programs for national personnel;
   - the promotion of public, private, partnership (PPP).

8. To improve the operation of surveillance networks of TADs and zoonoses by enhancing active surveillance in addition to the passive surveillance that is currently undertaken by most of the Member States, through:
   - the development of a SADC common surveillance strategy for prioritized TADs and Zoonoses;
   - the identification of possible incentives for timely reporting of surveillance activities (compliance with procedures);
   - the development of capacity in data management, quality validation and timely feed back to MS;
   - the inclusion of wildlife in the epidemi-surveillance networks

9. To promote wildlife health networks within the region and strengthen wildlife health services in Member States, through
   - the establishment of virtual centres at MS level;
   - the establishment of fora or exchange mechanism for wildlife experts;
   - the establishment of wildlife health networks building on existing OIE Wildlife focal points;
   - the promotion and support, by the SADC Secretariat, of bilateral exchange and capacity sharing programs to support wildlife health services in Member States.

10. To strengthen Veterinary Services of SADC countries, through:
    - completion of the PVS Gap Analysis and legislation exercises as soon as possible;
    - initiating program for strengthening various veterinary services to effectively deliver their mandate;
    - encouraging the MS to implement corrective measures on those PVS critical competencies where a low level was assessed in accordance with national priority.

11. To strengthen laboratory capacity to facilitate integrated disease surveillance and management with an improved networking between human and animal health laboratories, through:
    - the execution of joint training programs for public health and veterinary technicians in diagnostic techniques;
    - the establishment and/or sharing of national laboratories by different services (veterinary, public health, food safety);
    - the provision of support, by the SADC Secretariat, to MS to benefit from the OIE Laboratory twinning program;
    - the promotion of Centres of excellence in the SADC region.

12. To institutionalise a combined epidemiology training of veterinarians and human health experts at MSc level in SADC universities in order to foster interdisciplinary dialogue.

13. To organise regularized joint training courses for veterinarians, public health officers, wildlife experts on risk analysis for imported products of animal origin.

14. To finalise by SADC Secretariat the development of a communication strategy that will drive and assist the HPAI Regional Preparedness and Response plan, including other TADs and zoonoses to meet its objectives, through:
    - the institutionalization of communication strategies/plans in the national preparedness plans for the prevention and control of prioritized TADs and zoonoses and to broaden those already in place to encompass not just HPAI but also prioritized TADs and zoonoses within SADC countries;
    - the analysis of stakeholder of other participatory communication channels, capacity building, and inter-agency review of the strategies already in place.

15. To advocate the involvement of the veterinary services in the implementation of IHR 2005 in MS (SADC Secretariat).
16. To provide through RAHC additional support to the LDU (this is in view of the resources available in the RAHC in Southern Africa Region).
Guidelines for the Review of capacities of the Regional Economic Communities and Member States towards the formulation of the IRCM

February 2010
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<tr>
<td>AU-IBAR</td>
<td>Africa Union Inter-African Bureau for Animal Resources</td>
</tr>
<tr>
<td>ECOSOCC</td>
<td>Economic, Social and Cultural Council of the African Union</td>
</tr>
<tr>
<td>EID</td>
<td>Emerging Infectious Diseases</td>
</tr>
<tr>
<td>ERAD</td>
<td>Emerging and Re-emerging Animal Diseases</td>
</tr>
<tr>
<td>ERID</td>
<td>Emerging and Re-emerging Infectious Diseases</td>
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<tr>
<td>FAO</td>
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</tr>
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<td>GLEWS</td>
<td>Global Early Warning and Response System for Trans-boundary Animal Diseases</td>
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<tr>
<td>HPAI</td>
<td>Highly Pathogenic Avian Influenza</td>
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<tr>
<td>IDS</td>
<td>Integrated Disease Surveillance and Response</td>
</tr>
<tr>
<td>INAP</td>
<td>Integrated National Action Program</td>
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<td>IRCM</td>
<td>Integrated Regional Coordination Mechanism</td>
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<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
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<td>NGO</td>
<td>Non-Governmental Organizations</td>
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<td>NMTP</td>
<td>National Medium Term Priority Plan</td>
</tr>
<tr>
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<td>Joint OIE-FAO network of expertise on animal influenza</td>
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<td>OIE</td>
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</tr>
<tr>
<td>OWOH</td>
<td>One World One Health</td>
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<td>PVSS</td>
<td>Performance of Veterinary Services</td>
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<td>Regional Animal Health Center</td>
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<td>Sub-Saharan Africa</td>
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<td>Specialized Technical Committees</td>
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<td>United Nations Children’s Fund</td>
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<td>WAHID</td>
<td>World Animal Health Information Database</td>
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<tr>
<td>WHO</td>
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2 Introduction

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

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.

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 reassortment 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 [UNSIC] 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 Health21 - A Strategic Framework for

21 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 meetings22 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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22 Addis Ababa meeting on 18-21 August 2009 and Naivasha meeting on 18-21 October 2009.
4 Approaches and methodology

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 reports23, WHO country assessment reports (implementation status of International Health Regulations [IHR 2005], Integrated Disease Surveillance and Response [IDSR] and Health systems), NMTP24s 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

23 Availability of these OIE-PVS and PVS Gap Analysis reports is subordinated to a prior agreement of countries.
24 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/WAHID25)
- 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 epidemi-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; OFFLU26; GLEWS27)
- Regional Contingency/preparedness plans

**iv. Human Health**

25 OIE World Animal Health Information System / Database (WAHIS/WAHID)
26 Joint OIE-FAO network of expertise on animal influenza (OFFLU)
27 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 epidemiology-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

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 an 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, INAP, M&E reports of SPINAP, NMTP, 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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28 When available for Donors and Partners
29 National Medium Term Program
7 Products of the process

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.
### Table 13 Livestock production data of SADC Member States

<table>
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<th>Country</th>
<th>Cattle (1,000)</th>
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<th>Pigs (1,000)</th>
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<td>Mozambique</td>
<td>1,060</td>
<td>136</td>
<td>4,028</td>
<td>962</td>
<td>19.257</td>
</tr>
<tr>
<td>Namibia</td>
<td>2,336</td>
<td>2,955</td>
<td>2087</td>
<td>47</td>
<td>0.894</td>
</tr>
<tr>
<td>Seychelles*</td>
<td>0.53</td>
<td>0</td>
<td>5.2</td>
<td>7.75</td>
<td>0.43</td>
</tr>
<tr>
<td>S. Africa</td>
<td>13,500</td>
<td>26,575</td>
<td>5000</td>
<td>1,837</td>
<td>50.792</td>
</tr>
<tr>
<td>Swaziland</td>
<td>600</td>
<td>17</td>
<td>348</td>
<td>29</td>
<td>1.767</td>
</tr>
<tr>
<td>Tanzania</td>
<td>18,145</td>
<td>3,946</td>
<td>13054</td>
<td>975</td>
<td>35.947</td>
</tr>
<tr>
<td>Zambia</td>
<td>2,273</td>
<td>120</td>
<td>1069</td>
<td>343</td>
<td>28</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>5,012</td>
<td>391</td>
<td>3321</td>
<td>182</td>
<td>15.115</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61,667</strong></td>
<td><strong>37,261</strong></td>
<td><strong>44,335.2</strong></td>
<td><strong>11,089.75</strong></td>
<td><strong>232,224</strong></td>
</tr>
</tbody>
</table>

Source: SADC FANR, 2009 and FAO STAT website accessed March 2010 (for Seychelles data)

### Table 14 Food Supply from Livestock in the SADC region, 2008.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>85,350</td>
<td>7,830</td>
<td>195,500</td>
<td>9,450</td>
<td>4,300</td>
<td>27,950</td>
<td>1,275</td>
</tr>
<tr>
<td>Botswana</td>
<td>35,000</td>
<td>5,680</td>
<td>101,500</td>
<td>5,520</td>
<td>4,500</td>
<td>202</td>
<td>1,820</td>
</tr>
<tr>
<td>DR Congo</td>
<td>12,340</td>
<td>10,737</td>
<td>5,000</td>
<td>17,753</td>
<td>6,850</td>
<td>24,010</td>
<td>2,810</td>
</tr>
<tr>
<td>Lesotho</td>
<td>11,440</td>
<td>2300</td>
<td>32,500</td>
<td>2,025</td>
<td>1,625</td>
<td>97,50</td>
<td>3,750</td>
</tr>
<tr>
<td>Madagascar</td>
<td>150,450</td>
<td>36,800</td>
<td>530,000</td>
<td>6,375</td>
<td>14,900</td>
<td>54,600</td>
<td>2,760</td>
</tr>
<tr>
<td>Malawi</td>
<td>28,815</td>
<td>15,280</td>
<td>35,484</td>
<td>19,557</td>
<td>19,780</td>
<td>33,962</td>
<td>928</td>
</tr>
<tr>
<td>Mauritius</td>
<td>2,050</td>
<td>42,200</td>
<td>3,300</td>
<td>118</td>
<td>11,000</td>
<td>524</td>
<td>8</td>
</tr>
<tr>
<td>Mozambique</td>
<td>20,250</td>
<td>35,550</td>
<td>66,300</td>
<td>25,200</td>
<td>14,000</td>
<td>12,840</td>
<td>768</td>
</tr>
<tr>
<td>Namibia</td>
<td>38,640</td>
<td>96,00</td>
<td>110,000</td>
<td>5,244</td>
<td>2,700</td>
<td>2,035</td>
<td>7,560</td>
</tr>
<tr>
<td>Seychelles</td>
<td>9</td>
<td>768</td>
<td>152</td>
<td>20</td>
<td>610</td>
<td>364</td>
<td></td>
</tr>
<tr>
<td>S. Africa</td>
<td>805,000</td>
<td>974,150</td>
<td>3,060,000</td>
<td>36,500</td>
<td>485,250</td>
<td>150,000</td>
<td>118,000</td>
</tr>
<tr>
<td>Swaziland</td>
<td>12,500</td>
<td>5,000</td>
<td>39,000</td>
<td>1,854</td>
<td>1,050</td>
<td>1,150</td>
<td>129</td>
</tr>
<tr>
<td>Tanzania</td>
<td>247,000</td>
<td>45,700</td>
<td>850,000</td>
<td>30,600</td>
<td>35100</td>
<td>13,000</td>
<td>10,320</td>
</tr>
<tr>
<td>Zambia</td>
<td>58,400</td>
<td>36,500</td>
<td>84,000</td>
<td>7,680</td>
<td>46,900</td>
<td>11,000</td>
<td>756</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>97,000</td>
<td>36,455</td>
<td>250,000</td>
<td>12,840</td>
<td>22,000</td>
<td>27,775</td>
<td>616</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,604,244</strong></td>
<td><strong>1,2645,50</strong></td>
<td><strong>5,362,736</strong></td>
<td><strong>180,736</strong></td>
<td><strong>670,565</strong></td>
<td><strong>369,162</strong></td>
<td><strong>151,500</strong></td>
</tr>
</tbody>
</table>

Source: FAO STAT website accessed March 2010
### Table 15. Livestock imports (Heads) and import value (US$) in the SADC, 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>Cattle (1000)</th>
<th>Goats</th>
<th>Pigs (1000)</th>
<th>Sheep (1000)</th>
<th>Chickens (1000)</th>
<th>Total Import value US $ (1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>6,749</td>
<td>Na</td>
<td>Na</td>
<td>66</td>
<td>na</td>
<td>6,143</td>
</tr>
<tr>
<td>Botswana</td>
<td>2,650</td>
<td>215</td>
<td>11</td>
<td>191</td>
<td>819</td>
<td>4,241</td>
</tr>
<tr>
<td>DR Congo</td>
<td>3,516</td>
<td>Na</td>
<td>20</td>
<td>250</td>
<td>392</td>
<td>3,129</td>
</tr>
<tr>
<td>Lesotho</td>
<td>na</td>
<td>Na</td>
<td>50</td>
<td>90,000</td>
<td>na</td>
<td>5,004</td>
</tr>
<tr>
<td>Madagascar</td>
<td>na</td>
<td>4</td>
<td>Na</td>
<td>na</td>
<td>343</td>
<td>361</td>
</tr>
<tr>
<td>Malawi</td>
<td>193</td>
<td>Na</td>
<td>Na</td>
<td>na</td>
<td>60</td>
<td>519</td>
</tr>
<tr>
<td>Mauritius</td>
<td>8,145</td>
<td>2,473</td>
<td>Na</td>
<td>734</td>
<td>186</td>
<td>8,926</td>
</tr>
<tr>
<td>Mozambique</td>
<td>1,247</td>
<td>Na</td>
<td>11</td>
<td>15</td>
<td>851</td>
<td>913</td>
</tr>
<tr>
<td>Namibia</td>
<td>322</td>
<td>1,500</td>
<td>1,600</td>
<td>3,000</td>
<td>5,500</td>
<td>1,400</td>
</tr>
<tr>
<td>Seychelles</td>
<td>na</td>
<td>Na</td>
<td>Na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>S. Africa</td>
<td>60,000</td>
<td>160,000</td>
<td>361</td>
<td>50,000</td>
<td>410</td>
<td>62,649</td>
</tr>
<tr>
<td>Swaziland</td>
<td>7,911</td>
<td>357</td>
<td>348</td>
<td>16,486</td>
<td>1,717</td>
<td>4,234</td>
</tr>
<tr>
<td>Tanzania</td>
<td>116</td>
<td>110</td>
<td>4</td>
<td>4</td>
<td>2,136</td>
<td>1,074</td>
</tr>
<tr>
<td>Zambia</td>
<td>15</td>
<td>Na</td>
<td>6</td>
<td>608</td>
<td>1,711</td>
<td></td>
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<td>Zimbabwe</td>
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<td>Na</td>
<td>145</td>
<td>na</td>
<td>142</td>
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</tr>
<tr>
<td>Total</td>
<td>91,020</td>
<td>164,659</td>
<td>2550</td>
<td>160,752</td>
<td>13,164</td>
<td>103,304</td>
</tr>
</tbody>
</table>

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

### Table 16 Livestock Exports (Heads) and Export value (US$) in the SADC, 2007.

<table>
<thead>
<tr>
<th>Country</th>
<th>Cattle (1000)</th>
<th>Goats (1000)</th>
<th>Pigs (1000)</th>
<th>Sheep (1000)</th>
<th>Chickens</th>
<th>Total export value US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Botswana</td>
<td>165</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>84,000</td>
</tr>
<tr>
<td>DR Congo</td>
<td>100</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>37,000</td>
</tr>
<tr>
<td>Lesotho</td>
<td>na</td>
<td>na</td>
<td>Na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Madagascar</td>
<td>na</td>
<td>1,572</td>
<td>na</td>
<td>14</td>
<td>na</td>
<td>33,000</td>
</tr>
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<td>Malawi</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>119</td>
<td>105,000</td>
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<td>Mauritius</td>
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<td>na</td>
<td>na</td>
<td>na</td>
<td>409</td>
<td>455,000</td>
</tr>
<tr>
<td>Mozambique</td>
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<td>580</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>467,000</td>
</tr>
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<td>55,000</td>
<td>125,000</td>
<td>na</td>
<td>660,000</td>
<td>224</td>
<td>52,028,000</td>
</tr>
<tr>
<td>Seychelles</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>S. Africa</td>
<td>10,414</td>
<td>4,729</td>
<td>159</td>
<td>1,551</td>
<td>79</td>
<td>11,346,000</td>
</tr>
<tr>
<td>Swaziland</td>
<td>1,109</td>
<td>176</td>
<td>na</td>
<td>na</td>
<td>792</td>
<td>576,000</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2879</td>
<td>489</td>
<td>120</td>
<td>na</td>
<td>50</td>
<td>990,000</td>
</tr>
<tr>
<td>Zambia</td>
<td>100</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>212</td>
<td>500,000</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>26</td>
<td>Na</td>
<td>na</td>
<td>6</td>
<td>442</td>
<td>1,627,000</td>
</tr>
<tr>
<td>Total</td>
<td>69,793</td>
<td>1325,4</td>
<td>279</td>
<td>661,57</td>
<td>2,327</td>
<td>68,248,000</td>
</tr>
</tbody>
</table>

Source: FAO STAT website accessed March 2010; na – data not available
Table 17 Summary of possible activities in the IHR global survey that SADC MS have chosen to increase with stakeholders, including other ministries and partners.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Lesotho</th>
<th>Malawi</th>
<th>Seychelles</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan of Action developed for IHR implementation</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Information material / package provided (flyers, webpage, etc.)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Information meetings conducted</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Training/ workshop conducted</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>IHR (2005) translated</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>NA</td>
</tr>
<tr>
<td>Drill /exercise conducted</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Standard Operational Procedures (SOP) developed/revised for IHR operations*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Technical Guidelines revised/ developed*</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>IHR Committee established at the national level*</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Other(s)*</td>
<td>Yes</td>
<td>No</td>
<td>NI</td>
<td>No</td>
</tr>
<tr>
<td>If you have selected other(s) from the list above, please give a brief description here:</td>
<td>Mass media</td>
<td>NI</td>
<td>NI</td>
<td>NI</td>
</tr>
</tbody>
</table>

Table 18 National core capacities in surveillance and response (IHR (2005), Articles 5, 13, 19 and Annex 1A) selected by SADC MS having participated in the global IHR global survey.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>DR Congo</th>
<th>Lesotho</th>
<th>Malawi</th>
<th>Mozambique</th>
<th>Seychelles</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveillance for public health events and early warning system*</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Response to urgent public health events*</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Infection control in health care setting</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Risk communication in urgent public health events</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Laboratory support to the identification and management of urgent public health events*</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Have any other areas of capacity not listed above been assessed?*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>U</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>If you have indicated yes above, please give a brief description here</td>
<td>NI</td>
<td>NI</td>
<td>NI</td>
<td>NI</td>
<td>NA</td>
<td>NI</td>
</tr>
</tbody>
</table>
Is there a designated command, communication and control unit, centre or structure responsible for monitoring, coordinating and responding to Public Health Events?

|   | Yes | Yes | Yes | Yes | No | Yes |

Is there a country-wide event-based surveillance system in place which contributes to the early warning functions? (Event-based surveillance is the organized and rapid capture of information about events that are a potential risk to public health through formal and informal channels)

|   | Yes | Yes | Yes | Yes | Yes | Yes |

Does the national level have the capacity to provide on-site assistance as required to supplement local investigations (e.g. through a rapid response team)?

|   | Yes | Yes | Yes | No | Yes | Yes |

Has the State Party developed plans of action to ensure that these core capacities are present and functioning throughout its territories as set out in paragraph 2 of Annex I A?

|   | No | No | No | No | No | No |

Has the State Party established a national public health emergency response plan

|   | No | Yes | No | No | No | No |

---

**Box 2 Commitments, as part of the WD, for the SADC secretariat, the MS and the ICP community**

<table>
<thead>
<tr>
<th>Theme</th>
<th>SADC</th>
<th>ICPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWNERSHIP</td>
<td>Exercises effective leadership in coordinating and implementing the SADC Common Agenda (RISDP and SIPO) at regional and national levels.</td>
<td>Respect SADC leadership and help strengthen SADC’s capacity to exercise it at regional and national levels</td>
</tr>
<tr>
<td></td>
<td>Exercise leadership in developing, implementing and monitoring the regional development agenda through broad, consultative processes (including the participation of civil society and private sector)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Translate the RISDP and SIPO into prioritised results-oriented operational programmes expressed in mid-term expenditure frameworks and annual budgets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordinate regional development assistance at all levels in conjunction with other development resources in dialogue with ICPs.</td>
<td></td>
</tr>
<tr>
<td>ALIG NMENTS</td>
<td>Carry out diagnostic reviews that provide reliable assessments of SADC systems and procedures.</td>
<td>Base overall support on the SADC Common Agenda – as expressed through the SIPO and RISDP.</td>
</tr>
<tr>
<td>On the basis of such diagnostic reviews, undertake reforms that may be necessary to ensure that systems, institutions and procedures for managing aid and other development resources are effective, accountable and transparent.</td>
<td>Base their overall support on RISDP and SIPO and periodic reviews (monitoring and evaluation) of progress in implementing these reforms.</td>
<td></td>
</tr>
<tr>
<td>Integrate specific capacity strengthening objectives in national and regional development strategies and pursue their implementation through SADC-led capacity development strategies where needed.</td>
<td>Link funding to a joint framework of conditions and/or a manageable set of indicators derived from RISDP and SIPO.</td>
<td></td>
</tr>
<tr>
<td>Intensify efforts to mobilise internal resources, and create an enabling environment for public and private investments.</td>
<td>Use SADC systems and procedures to the maximum extent possible and where needed establish additional safeguards and measures in ways that strengthen rather than undermine SADC systems and procedures.</td>
<td></td>
</tr>
<tr>
<td>Report in a timely and transparent way on budget execution.</td>
<td>Adopt harmonised performance assessment frameworks for SADC systems so as to avoid presenting SADC with an excessive number of potentially conflicting targets.</td>
<td></td>
</tr>
<tr>
<td>Taking leadership and implement the procurement reform process.</td>
<td>Align their analytic, financial and technical support with SADC’s capacity development objectives and strategies, make effective use of existing capacities and harmonise support for capacity development accordingly.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide reliable indicative commitments of aid over a multi-year framework and disburse aid in a timely and predictable fashion according to agreed schedules;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rely to the maximum extent possible on transparent SADC budget and accounting mechanisms.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide support to SADC in capacity building for financial management.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Progressively rely on SADC systems for procurement when SADC has implemented mutually agreed standards and processes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adopt harmonised approaches when SADC systems do not meet mutually agreed levels of performance or ICPs do not use them.</td>
<td></td>
</tr>
<tr>
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<td>Continuation of untying aid as encouraged by the 2001 DAC Recommendation on Untying Official Development Assistance to the Least Developed Countries.</td>
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**ALIGNMENT**

- Work together to establish mutually agreed frameworks that provide reliable assessments of performance, transparency and accountability of SADC systems.
- Integrate diagnostic reviews and performance assessment frameworks within SADC-led strategies for capacity development.
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<th><strong>Use mutually agreed standards and processes to carry out diagnostics, develop sustainable reforms and monitor implementation</strong></th>
<th><strong>Commit sufficient resources to support and sustain medium and long-term procurement reforms and capacity development</strong></th>
<th><strong>Share feedback on recommended approaches so they can be improved over time</strong></th>
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<tr>
<td><strong>HARMONISATION</strong></td>
<td><strong>Provide clear guidance taking into account ICPs’ comparative advantage in the areas of cooperation.</strong></td>
<td><strong>Implement the ICP action plans that they have developed as part of the follow-up to the Rome High-Level Forum</strong></td>
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<td><strong>Implement, where feasible, common arrangements for planning, funding (e.g. joint financial arrangements), disbursement, monitoring, evaluating and reporting to SADC on ICP activities and aid flows. Increased use of programme-based aid modalities can contribute to this effort.</strong></td>
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<td><strong>Work together through conducting joint missions and diagnostic work, sharing of analytical work and information; and undertaking joint training to share lessons learnt and build a community of practice.</strong></td>
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<td><strong>Make full use of their respective comparative advantage at sector or regional level by delegating, where appropriate, authority to lead ICPs for the execution of programmes, activities and tasks.</strong></td>
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<td><strong>Coordinated funding arrangements in support of the implementation of the frameworks and interventions set out in the RISDP and SIPO.</strong></td>
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<td><strong>Work together to harmonise procedures.</strong></td>
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<td><strong>Reform procedures and strengthen incentives including for recruitment, appraisal and training for management and staff to work towards harmonisation, alignment and results.</strong></td>
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<td><strong>MANAGING FOR RESULTS</strong></td>
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<td><strong>Link regional programming to bilateral country programming and resources to results and align them with effective SADC performance assessment frameworks, refraining from requesting the introduction of performance indicators that are not consistent with SADC’s development strategies.</strong></td>
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<td><strong>Strengthen the linkages between on the one hand regional and national development strategies. On the other hand strengthen the linkages between the above strategies and annual and multi-annual budget processes and the business plans derived from the RISDP and the SIPO.</strong></td>
<td><strong>Work with SADC to rely, as far as possible, on SADC results oriented reporting and monitoring frameworks.</strong></td>
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<td><strong>Endeavour to establish results-oriented reporting and assessment frameworks that monitor progress against key dimensions of the national, regional (spatial) and sector (cluster) level development strategies; and that these frameworks should track a manageable number of indicators for which data are cost-effectively available.</strong></td>
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</table>
Harmonise monitoring and reporting requirements, and, until ICPs can rely more extensively on SADC’s statistical, monitoring and evaluation systems, with SADC to the maximum extent possible on joint formats for periodic reporting.

Provide timely, transparent and comprehensive information on aid flows so as to enable SADC Secretariat to present comprehensive budget reports to its Member States.

Jointly assess through existing and increasingly objective mechanisms, mutual progress in implementing agreed commitments on aid effectiveness, including the New SADC/ICP Partnership.

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Annex 4. Consulted documents

- PVS report D.R.Congo
- PVS report Lesotho
- PVS report Madagascar
- PVS report Malawi
- PVS report Mauritius
- PVS report Mozambique
- PVS report Namibia
- PVS report Swaziland
- PVS report Tanzania
- PVS report Zambia
- The Constitutive Act of the African Union (2003),
- Protocol on relations between the African Union (AU) and the Regional Economic Communities (RECs)(2007)
- Accra Declaration on accelerated economic and political integration (Accra 3rd July 2007)
- Rationalization of the Regional Economic Communities (RECs): Review of the Abuja Treaty and adoption of Minimum Integration Programme (2007)
- Consolidated text of The Treaty of the Southern African Development Community, as amended, 2001
- Profile: Southern African Development Community
- Regional Indicative Strategic Development Plan (RISDP)
- SADC Protocol on trade
- Protocol on Wildlife Conservation and Law Enforcement in SADC
- Dar-es-Salaam Declaration on Agriculture and Food Security in the SADC Region (15th May 2004)
- Protocol on tourism-SADC website
- SADC regional Programme for Rhino Conservation
- 2010 FOR SADC: TOURISM CONTRIBUTING TO POVERTY REDUCTION-A discussion paper at the “2010 for SADC” Workshop: Gaborone, Botswana by Francis. K. Mfune-RETOSA.
- AHEAD-GLTFCA WORKING GROUP-proceedings of 4th meeting
- Environmental analysis for regional strategy paper-Background briefing paper for the SADC-EC 10th European Development Fund regional Strategy Paper (RSP)
- Sport hunting in the southern African Development community (SADC) region-An overview-Rob Barnett and Claire Patterson. TRAFFIC East/Southern Africa.
- Protected Areas and Biodiversity. An overview of Key issues. Kalemani Jo Mulongoy and Stuart Chape.
- 20 Years of Development in Southern Africa-A sectoral review of regional integration in SADC
- Achieving compatibility between the Trans-frontier Conservation Area (TFCA) concept and international standards for the management of Transboundary animal diseases

GRM international report: Technical Assistance to the SADC Foot and Mouth Disease Project


WWF Species action plan. African Elephant.

SADC protocol on health

Draft implementation plan for the protocol on health, 2007-2013

SADC Health sector policy framework document, 2000

SADC Pharmaceutical business plan 2007-2013

SADC Coordination mechanisms document

INAP Mozambique

PNAI DR Congo

PNAI Madagascar

INAP Zambia

HPAI Surveillance Guidelines for Backyard and Free Range Poultry Farming Systems in the SADC Region (FAO, July 2009)

SPINAP AI Communication Trainers’ Manual (Draft, AU IBAR October 2009),


INAP Country Reports (Zambia, Lesotho, Mozambique, Namibia)


European Commission – Southern Africa Region: Regional Strategy Paper and Regional Indicative Program 2008-2013

The Windhoek Declaration and its implementation plan.

Revitalization of Angola forestry sector: Support to NEPAD-CAADP IMPLEMENTATION TCP/ANG/2908 (I) (NEPAD Ref.05/15 E), Volume V of VI, Bankable Investment Project Profile


Contributing to One World, One Health: A strategic Framework for Reducing Risks of Infectious Diseases at the Animal-Human-Ecosystems Interface (October 2008)