Panafrican Animal Health Yearbook

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AFRICAN UNION INTERAFRICAN BUREAU FOR ANIMAL RESOURCES

Panafrican Animal Health Yearbook 2011



Interafrican Bureau for Animal Resources African Union P.O Box 30786 code 00100 Nairobi, Kenya <u>reports@au-ibar.org</u> <u>www.au-ibar.org</u>

Panafrican Animal Health Yearbook

An AU-IBAR Publication

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The importance and contribution of livestock to the Gross Domestic Product (GDP) and livelihoods of the vast majority of the human population in Africa cannot be overemphasized. Livestock is estimated to contribute between 5 -78% of the GDP of many African countries. Livestock production is also the major source of income, sustenance and livelihood of over 75% of the people living in the rural areas in Africa. It is a major source of income and foreign exchange for many countries and contributes significantly as a source of employment in Africa.

Despite its contribution and potentials, livestock production in Africa is faced with many challenges, some of which include the low productivity of many of the indigenous breeds of animals, poor production practices, lack of feed and water, and high prevalence of diseases. With regard to animal health, all the major transboundary animal diseases (TADs) and Zoonoses are found in Africa, and are endemic in many countries. While a lot of effort is being made to control animal diseases on the continent, one of the major challenges is the lack of accurate and timely data to accurately assess the impact of diseases and plan viable control and preventive measures.

It is in view of this that the African Union – Interafrican Bureau for Animal Resources (AU-IBAR), in the discharge of its mandate of providing advisory service and supporting policy making by the African Union (AU) and its Member States (MS), and in recognition of the important role that information plays in decision making, started the production and distribution of the then "Bulletin of Epizootics in Africa" in March 1953 on a biannual basis, which later became the Panafrican Animal Health Yearbook (PAHYB). AU-IBAR has continued to maintain and improve on this tradition. The production of the current annual series of the Yearbook started in 2002 with a new cover and expanded content. The current edition is the tenth in the series.

The purpose of the Yearbook is to share information and knowledge on disease occurrences and other animal health matters in a transparent manner and in line with international standards. The continuously increasing risk to disease introduction and spread across countries and continents, due to the increase of movements of humans, animals and animal products as a consequence of globalization, increasing free trade and interdependency is a major source of concern to many countries. Countries need information to protect their livestock and human populations. The advent of the Highly Pathogenic Avian Influenza (HPAI), which is still present in some countries, including in at least one country in Africa, is a case in point and demonstrates the importance and need for transparency and free sharing of information.

The PAHYB is one of the contributions of AU-IBAR to all stakeholders, especially decision makers, to meet this challenge. While the Yearbook is mainly about animal health, its contents will be gradually expanded in the coming years to cover all areas of animal resources, including animal population, trade and marketing, and capacity etc, in order to provide more comprehensive information for decision making and give more impetus to inter- and cross-sectoral collaboration.

Prof. Ahmed Elsawalhy Director of AU-IBAR, Head of Mission

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The efforts and commitment of the AU-IBAR editorial team are highly commended and appreciated as well.

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ABBREVIATIONS AND ACRONYMS

AHS	African Horse Sickness
ASF	African Swine Fever
AUC	African Union Commission
AU-IBAR	African Union- Interafrican Bureau for Animal Resources
CAC	Codex Alimentarius Commission
CAP	Caprine
CAR	Central Africa Republic
CBPP	Contagious Bovine Pleuropneumonia
CCPP	Contagious Caprine Pleuropneumonia
DRC	Democratic Republic of Congo
ECF	East Coast Fever
FAO	Food and Agriculture Organization
FMD	Foot and Mouth Disease
GDP	Gross Domestic Product
HPAI	Highly Pathogenic Avian Influenza
IBD	Infectious Bursa Disease
ILRI	International Livestock Research Institute
INAP	Integrated National Action Plans
IPPC	International Plant Protection Convention
IRCM	Integrated Regional Coordination Mechanism
LIMS	Livestock information Management System
LEISOM	Livestock Emergency Interventions to Mitigate food crisis in Somalia
LSD	Lumpy Skin Disease
MCF	Malignant Catarrhal Fever
MS	Member States
ND	Newcastle Disease
OIE	World Organisation for Animal Health
PAAT	Program Against African Trypanosomiasis
PANVAC	Pan African Vaccine Center
PPR	Peste des Petits Ruminants
PATTEC	Pan African Tsetse and Trypanosomiasis Eradication Campaign
REC	Regional Economic Community
RVF	Rift Valley Fever
S&GP	Sheep and goat Pox
TADs	Trans-boundary Animal Diseases
ТВ	Tuberculosis
USAID	United States Agency for International Development
VSF	Vétérinaires Sans Frontières
WAHIS	World Animal Health Information System
WTO	World Trade Organization

DEFINITION OF TERMS

Wherever used in this book, these terms have the following meanings:-

• **Epidemiological Unit:** refers to a unit of area containing a group of animals (herd or flock) in a farm or village/larger geographical area sharing a communal animal handling facility depending on the production system of the area. It is defined and used by a Veterinary Services of a country to define and count an outbreak of a disease.

According to the OIE Terrestrial Code, 'Epidemiological unit means a group of animals with a defined epidemiological relationship that share approximately the same likelihood of exposure to a pathogen. This may be because they share a common environment (e.g. animals in a pen), or because of common management practices. Usually, this is a herd or a flock. However, an epidemiological unit may also refer to groups such as animals belonging to residents of a village, or animals sharing a communal animal handling facility.

- **Outbreak**² : means the occurrence of one or more cases in an epidemiological unit.
- **Number of susceptible animals (population at risk)** the number of animals that can be affected by a disease within an epidemiological unit.
- **Number of cases³**: the number of animals infected (diseased) by a pathogenic agent, with or without clinical signs.
- Number of deaths: the number of animals died from a disease within an epidemiological unit
- **Number of slaughtered animals -** means the number of sick or in-contact animals that are slaughtered to control a disease within an epidemiological unit, without restriction on the consumption of the meat by a human being.
- **Number of destroyed animals:** the number of animals destroyed and disposed in an epidemiological unit to control the spread of a disease.

In 2011, 42 Member States (MS) of the African Union (AU) submitted their disease reports to the Interafrican Bureau for Animal Resources of African Union (AU-IBAR). The number of countries that reported their disease situation to AU–IBAR has decreased by 11.68% from 49 (92.45%) in 2010 to 42 (80.77%) in 2011.

A total of 91 animal diseases were recorded in 2011 involving 24,201 outbreaks, and 2,025,190 cases, causing 651,275 deaths and the slaughtering and destruction of 225,789 and 262,339 animals, respectively. The highest mortality rate was registered on avian species (61.96%) followed by swine (19.85%), small ruminants (SMR) (14.10%) and cattle (3.53%).

The most widely distributed transboundary animal diseases (TADs) based on the number of countries affected include Newcastle Disease (ND), lumpy skin disease (LSD), Peste des Petits Ruminants (PPR), foot and mouth disease (FMD), African swine fever (ASF) and contagious bovine pleuropneumonia (CBPP) in a decreasing order. However based on the number of epidemiological units (number of outbreaks) affected, LSD appeared the most prevalent followed by PPR, ND, FMD, African horse sickness (AHS), sheep & goat Pox (SGP), ASF and CBPP in a decreasing order. In the same order, the most reported deadly TADs were ND, ASF, PPR CBPP, FMD and SGP.

Among the diseases other than TADs, Rabies was the most widely distributed disease geographically, affecting 34 out of the 42 countries that submitted reports, followed by blackleg (BQ), trypanosomosis, tuberculosis (TB), anthrax and brucellosis. Contrary to 2010, where in terms of prevalence, rabies was recorded with the highest number of outbreaks, in 2011 theileriosis (1,942) and trypanosomosis (1,629) had the largest number of outbreaks. On the other hand the largest number of cases was caused by trypanosomosis, brucellosis, infectious bursal diseases (IBD), babesiosis, theileriosis, mange, anaplasmosis, pasteurellosis and blackleg, in a decreasing order.

Low quality of reports, delay in submission of the reports and decrease in the number of reporting countries remained the main challenges responsible for the lack of better understanding of the epidemiology of animal diseases on the continent. The rolling out of the Animal Resource Information System (ARIS-2) in 2012 is expected to address such challenges.

Disease control interventions of AU–IBAR through the VACNADA and LEISOM projects were successfully concluded in 2011. These projects enabled the vaccination of 49,185,953 animals against PPR, CCPP and CBPP in the targeted countries. Additionally, support was provided to eight vaccine producing laboratories in order to enhance their production capacity and improve the quality of vaccines produced, as well as enable AU-PANVAC to acquire a Bio-safety Level 3 (BSL3) laboratory.

I.INTRODUCTION

The Panafrican Animal Health Yearbook (PAHYB) is produced annually by AU-IBAR to promote transparency in disease reporting and the sharing of animal health information in Africa. The principal content of this edition of the Yearbook is the analysis of monthly disease outbreaks based on the reports submitted by AU-MS within the year. A section of the book is devoted to providing information on the interventions carried out by AU-IBAR to ameliorate and improve the animal health situation on the continent through its various projects.

This 10th edition of the Yearbook follows the same pattern as the previous editions and provides the status of the major TADs and Zoonoses and some important diseases that are prevalent on the continent. While providing an analysis of the disease situation on the continent, many of the issues and the problems associated with data quality and disease control in Africa in general becomes apparent. These include the lack of adequate diagnostic capacity in many countries, which is further exacerbated by ineffective laboratory networking on the continent. Thus, the changes in the behavior of infectious agents and their pathogenicity as well as changes in the epidemiology of diseases and the threat they pose appear not to be adequately assessed. Other challenges include the ineffective application of disease control measures, lack of adequate trained/skilled staff and poor record keeping, among others.

The animal health data contained in the Yearbook are sourced from the monthly disease reports that MS submit to AU-IBAR most of which are based on passive data collection methods. Therefore while the Yearbook contains some analysis of disease outbreak data as reported by MS, it is not a detailed academic study of the disease situation at national or the continent level, and as such does not contain detailed epidemiological parameters and outputs. It should also be noted that while the reporting rate from MS has continued to improve over the years, there are still cases of under reporting especially at the sub-national levels. The Yearbook should therefore be viewed as the general reflection of the animal health situation on the continent during the year and used as such. It is nevertheless a very good guide for decision making on animal health matters at the country, regional and continental level, which is its main purpose.

An update of the interventions being carried out by AU-IBAR through its various projects in the area of animal health and animal resource development is also provided. These include the VET-GOV, IRCM, VACNADA, PANSPSO and the ARIS-2 projects and interventions.

2. GENERAL STATUS OF MONTHLY ANIMAL DISEASE REPORTING

2.1.Trend of Disease Reporting by countries from 2000 to 2011

During the year 2011, 42 out of the 53 African countries have submitted their animal disease reports to AU-IBAR against the 49 countries that reported in 2010. The number of countries that reported this year has declined from 92.45% in 2010 to 80.77%. This represented the lowest reporting rate by countries since 2008 (Table 1). This decline can be attributed to the ending of the Support Program to Integrated National Action Plan against Avian and Human Influenza (SPINAP-AHI) which officially closed in 2010. There is a need for maintaining the high reporting rate achieved in the last few years through ownership of the process and continuous awareness creation campaigns in Member States (MS) such as workshops, meetings, conferences, etc. Improvement in feedback to data submitters at different administrative levels is also essential. The effective operationalization of the Animal Resource Information System (ARIS-2) will help to steadily improve disease report submission by all MSs of the African Union.

Despite the slight decrease in the number of reporting countries, it is important to note that most countries on the continent fulfilled their obligation by submitting their animal disease reports (figure I) to AU-IBAR and other regional (SADC/LIMS) and international organizations (OIE).

Year	No. of countries that reported	Expected number of countries	% of countries reporting
2000	10	53	18.87
2001		53	20.75
2002	37	53	69.81
2003	40	53	75.47
2004	40	53	75.47
2005	37	53	69.81
2006	35	53	66.04
2007	37	53	69.81
2008	44	53	83.02
2009	47	53	88.68
2010	49	53	92.45
2011	42	53	80.77

 Table 1: Trend of disease reports to AU-IBAR (2000-2011)



Figure 1: Trend of disease reports to AU-IBAR (2000-2011)

2.2. Status of monthly disease reporting in 2011

In 2011, a total of 84.78% of the expected monthly disease reports were received from Member States against 94.23% and 88.46% respectively in 2010 and 2009 (Annex 1). Although the greater majority of African countries submit disease reports to both AU-IBAR and OIE, since 2009 the submission rate to AU-IBAR has consistently been higher than the OIE. During 2011, 41 countries submitted their reports to OIE whereas 42 countries to AU-IBAR (Figure 2). Among the reports received, it is important to highlight the fact that some countries submit "zero reports", indicating the absence of disease outbreaks during the reporting periods. Even though the importance of zero reporting in situations where there are really no disease outbreaks is appreciated, this indicator should be interpreted and/or used with caution for in some instances it might be due to under-reporting.

The main challenges associated with disease reporting in 2011 remained the poor quality, inconsistency and lack of details of some important data components such as the population at risk, species, age and sex differentiation, details of laboratory diagnostic tests and results, geo-reference data, etc. These variables are very important in determining



Figure 2: Disease reporting status from African countries to AU-IBAR and OIE

several epidemiological parameters, as the number of outbreaks alone is not a very good indicator of measuring the impact of a disease at country or regional level. Better analysis and interpretation of results will be done as the quality of reports improved.

2.3 Reporting formats

Different types of formats are being used by countries to submit monthly disease status reports to AU-IBAR. During the year 2011, 21 countries (50%) used the standard AU-IBAR format, 11 countries (26.19%) used the OIE

format, 4 countries (9.52%) used the SADC (LIMS) format, and two countries used the FAO/ TAD-Info format (4.76%) while 7 countries (16.66%) used their own in-house format to submit their reports (Figure 3).

With the current effort being made by AU-IBAR to develop and roll out a new online and interoperable database and reporting system in 2012, the formats being used for reporting to OIE, AU-IBAR, FAO and LIMS would be unified and the conflict of choice of format to use would be completely eliminated.



Figure 3: Different types of formats used by countries for reporting to AU-IBAR

3. GENERAL STATUS OF DISEASES IN AFRICA IN 2011

The general status of animal diseases described in this section and the details provided later for specific diseases are based on the reports received from countries. All the reports received were analyzed and the summaries presented in the tables, figures and charts below. Some of the variables used include the number of countries affected, species affected, number of cases and deaths in reported disease outbreaks or events, and the nature of the disease outbreak investigation and confirmation by laboratories etc. The ranking of diseases reported in 2011 was also made separately for the major TADs and other important major diseases based on the above parameters.

Where possible, the disease situation in 2011 is compared with that of the previous year. The spatial distribution of outbreaks is presented on maps, and the specific location of disease outbreaks are used in mapping when the georeference data was provided.

3.1. Diseases reported

The disease reports collected from the 42 MSs indicated that a total of 91 animal diseases were recorded in 2011. The number of reported diseases has significantly increased

compared to the 79 diseases reported in 2010. The reported diseases ranged from TADs to other important diseases including zoonosis and other infections (Annex I).

The major TADs reported include Newcastle (ND), lumpy skin disease (LSD), sheep pox and goat pox (SGP), peste des petits ruminants (PPR), contagious bovine pleuropneumonia (CBPP), foot and mouth disease (FMD) and African swine fever (ASF) with higher number of outbreaks, cases and deaths as well as spread within and between countries.

The other group of important diseases reported in 2011 includes rabies, pasteurellosis, trypanosomosis, blackleg, anthrax, brucellosis, anaplasmosis, babesiosis, heartwater, infectious bursal disease (IBD), tuberculosis, mange and dermatophilosis among others.

3.2. Disease situation by number of countries affected

Similar to the situation in the previous year, the most widely distributed TADs in Africa are ND (33), LSD (29),) PPR (28), FMD (28), ASF (22), CBPP (18), SGP (13) and CCPP (7). Figure 3 below provides details on the number



Figure 4: Number of countries affected by TADs in 2011 compared to 2010

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Figure 5: Number of countries affected by other important diseases in 2011

of Member States affected by type of disease in 2011 in comparison to 2010. Compared with 2010, PPR, FMD and ASF had a slightly more widespread occurrence in 2011.

Among other important diseases, Rabies had the widest spatial distribution affecting 34 countries, followed by blackleg (23), tuberculosis (21), trypanosomosis (21), anthrax (21), brucellosis (18), babesiosis (15), anaplasmosis (14), heartwater (14), pasteurellosis (13), dermatophilosis (12) and IBD (12). Figure 5 shows the number of countries affected by the other important diseases in 2011 in comparison with 2010.

In general, the trend of spatial disease distribution within the continent remained unchanged since 2005. This status is an indication of disease endemicity as well as lack of coordinated and harmonized efforts and interventions in controlling animal diseases at both national and regional levels. The widely reported diseases on the continent are shown in figure 6 below.



Figure 6: Most common reported diseases by number of countries affected

3.3. Disease situation by number of reported outbreaks

In 2011, from the 91 animal diseases reported by MS, a total of 24,201 outbreaks were recorded. This is an increase of 36.67% compared to the 17,708 outbreaks involving 79 animal diseases reported in 2010, and represents the highest increase in the number of reported outbreaks on the continent since 2000. The logical explanation for this increase, especially in view of the fact that the number of reporting countries had actually reduced, might be because of failure in internal disease control efforts or improvement in data generation within the reporting countries. More studies need to be carried out to explain this situation. From the reported diseases, theileriosis had the highest number of outbreaks with 1,942 followed by trypanosomosis (1,629), rabies (1,608), LSD (1,370), PPR (1,188), TB (1,123), brucellosis (1,066), ND (1,056), pasteurellosis (1,016) and babesiosis (1,012) among the diseases each with over 1,000 outbreaks notified. The detailed number of outbreaks and other parameters for all the diseases is provided in annex 2, while figure 7 shows the most common reported diseases in terms of reported number of outbreaks.

Among the TADs, LSD was the most prevalent in 2011 with 1185 reported outbreaks followed by PPR, ND, FMD, AHS, SGP, ASF and CBPP (Figure 8). Despite some variations, the general trend in the number of outbreaks of TADs and other important diseases did not change significantly between the year 2010 and 2011 as indicated in figures 6, 7 and 8 respectively. In 2011, the number of reported outbreaks due to two vector borne diseases, i.e. theileriosis and trypanosomosis, significantly increased compared to 2010.



Figure 7: Most common reported diseases by number of countries affected



Figure 8: Comparison of the number of outbreaks in TAD in 2011 and 2010



Figure 9: Comparison of the number of outbreaks in other important diseases in 2010 and 2011



Figure 10: Comparison of the outbreaks in most commonly reported diseases in 2010 and 2011

3.4. Disease situation by number of cases in reported outbreaks

Contrary to the outbreak situation, the number of reported cases drastically decreased from 5,286,686 in 2010 to 2,025,190 in 2011. Among the TADs, the highest number of cases resulted from ND, AI, ASF, PPR, FMD, LSD and CBPP (figure 9). For the other important diseases, the highest number of cases was recorded from trypanosomosis followed by brucellosis, IBD, babesiosis, theileriosis, mange, anaplamosis and pasteurellosis (Figure 11). Similar to the previous years, the avian species recorded the highest number of cases (Figure 12).



Figure 11: Reported cases in TADs in 2011 compared to 2010



Figure 12: Reported cases in other important diseases in 2011 compared to 2010





3.5. Disease situation by number of deaths in reported outbreaks

A total of 651,274 animals died from the reported diseases in 2011 against 500,195 animals in 2010. The highest losses were in the avian species in a situation similar to the previous year followed by ASF, PPR, CBPP, SGP, LSD, CCPP and AHS. The total number of animals slaughtered and destroyed as a disease control measure over the year was 225,789

and 262,339, respectively. This represents a very significant increase of 73.41% and 587.92% compared to 2010 where only 130,208 and 38,135 animals were slaughtered and destroyed respectively. These figures indicate that disease affected countries have significantly increased the use of slaughter and destruction as disease control measures during the year. Figures 14, 15 and 16 give the status of the reported deaths due to diseases in 2011 as compared to 2010.



Figure 14: Reported deaths in TADs in 2011 compared to 2010



Figure 15: Reported deaths in other important diseases in 2011 compared to 2010



Figure 16: Most common deadly diseases reported in 2011 compared to 2010

3.6. Disease situation by species affected in the reported outbreaks in 2011

The disease outbreaks reported in 2011 affected six species of farm animals, two species of companion animals, buffaloes, other wildlife species and bees. Although about 3.68% of the data have not been classified on species basis

due to lack of adequate information, the Bovine species are the most affected accounting 51,74% of the outbreaks, followed by small ruminants (SMR) (20,19%), avian species (9,38%), canine (4,16%), swine (3,68%), Equine (3,67%) and camels (2,02%) (Figure 17).



Figure 17: Disease situation by species affected in the reported outbreaks in 2011

Variation was also observed on the number of cases and deaths among animal species with more than half (53.97%) of the cases involving avian species followed by bovine (27.97%), small ruminants (10.35%) and porcine (6.11%). Figure 18 gives the details of species involvement in cases during the reporting period. The proportion of animal species that died and

the total loses suffered due to the reported diseases in 2011 is presented in figure 19. The avian species suffered 61.96% of the reported deaths followed by porcine (19.86%), ovine and caprine (14.10%) and bovine (3.54%). The trend is the same in terms of total losses with 73.05%, 12.55%, 10.42% and 3.26% respectively.



Figure 18: Proportion of cases by species affected in the reported outbreaks



Figure 19: Proportion of mortalities by species affected in the reported outbreaks

3.7. Nature of disease outbreak investigation and confirmation by laboratory

Most of the reports received lacked details about the diagnostic methods used to investigate and confirm disease outbreaks, making it difficult to analyze the laboratory involvement in supporting field disease investigations and the reliability of diagnostic methods used. The disease reports received in 2011 from MS were mainly based on clinical signs 45.96% and owner claims 2.34%, while 36.75% of the reported cases did not indicate the method of diagnosis used. Laboratory diagnosis applied to confirm the reported outbreaks accounted for only 7.28%, followed by post mortem 4.96% and clinical postmortem 2.71%. This situation calls for the Veterinary Services of MS to put in extra efforts to strengthen the linkage between epidemiology units and diagnostic laboratories. The comparative data for methods of diagnosis used to confirm reported outbreaks are shown in Figure 20.



Figure 20: Nature of disease outbreak investigation and confirmation by laboratory

4. SITUATION OF MAJOR ANIMAL DISEASES REPORTED

4. I. African horse sickness (AHS)

During 2011, a total of 627 outbreaks of AHS was recorded in 6 countries, compared to 305 outbreaks reported from 5 countries in 2010 and 15 outbreaks reported from 7 countries in 2009. Although the disease has been reported over the past several years in five of the affected countries, the appearance of AHS in Somalia is regarded as a new epidemiological event. The highest number of AHS outbreaks was reported from South Africa with 447 outbreaks followed by Ethiopia with 167 reported outbreaks. Overall, due to the outbreaks of AHS, a total of 2,754 horses were affected with 1,013 reported mortalities representing a 36.8% case fatality rate.

In terms of temporal distribution, the highest number of outbreaks was reported in the month of March with 255 outbreaks as shown on Chart I below

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Ethiopia	167	2678	982	0	3
Gambia	I	5	5	0	0
Namibia	9	37	13	0	0
Somalia	I	20	7	0	0
South Africa	447				
Swaziland	2	14	6	0	0
Total (6)	627	2754	1013	0	3





Map 1: Spatial distribution of African Horse Sickness in Africa in 2011



Chart I: Monthly Distribution of AHS Outbreaks in the Affected Countries

4.2. African swine fever

During 2011, ASF outbreaks were reported by 22 countries with a total of 471 affected epidemiological units involving 144,950 cases and 135,612 deaths, representing a case fatality rate of 93.6%. Significantly, the Democratic Republic of Congo registered the highest number of outbreaks (84) accounting for about 17.8% of the reported outbreaks and 79.4% of mortalities.

Although ASF was reported throughout the year in Africa, the highest number of outbreaks was recorded in May and January with 57 and 51 outbreaks, respectively as shown on Chart 2 and Map 2.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	25	1426	815	536	52
Burkina Faso	26	1518	1134	0	0
Cameroon	4	146	89	0	NS
Central African Republic	17	993	742	0	0
Chad	7	189	126	59	54
Congo Brazzaville	I	2	2	0	0
DRC	84	105614	105614	9691	49
Ethiopia	7	28	19	0	NS
Gambia	5	198	198	0	0
Ghana	7	567	510	152	25
Kenya	6	57	53	0	NS
Liberia	I	12	4	8	0
Madagascar	19	540	540	NS	91
Malawi	36	19755	18956	114	19
Mozambique	16	591	380	0	316
Nigeria	I	I	70	0	0
Rwanda	60	677	600	2054	647
South Africa	I	NS	NS	NS	NS
Tanzania	7	2063	1334	NS	NS

 Table 3: Countries reporting African swine fever

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Togo	80	2363	1151	235	40
Uganda	56	7788	3763	1584	99
Zambia	5	422	212	NS	NS
Total	471	144950	135712	14433	1392

NS: Not specified







Chart 2: Monthly Distribution of ASF Outbreaks in the Affected Countries

4.3. Avian Influenza

The only country that reported Highly Pathogenic Avian Influenza in 2011 was Egypt. The country reported a total of 306 outbreaks that involved morbidity of 218,797 and mortality of 31,851 birds. Except for

Table 4: Countries reporting avian influenza

its apparent entrenchment in Egypt, the occurrence of HPAI has significantly diminished on the African continent. The countries that reported occurrence of HPAI in the last few years include Egypt (2009, 2010, 2011), South Africa (2010) and Togo (2008).

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Egypt	306	218797	31851	60735	126395
Total (I)	306	218797	31851	60735	126395



Map 2: Spatial distribution of Avian Influenza in Africa in 2011



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4.4 Bluetongue

Five countries reported bluetongue in 2011. As was the case in the previous years, the countries that reported bluetongue in 2011 are from North and Southern Africa regions, namely Algeria, Lesotho, Namibia, South Africa and Tunisia (map 4). The Bluetongue virus, serotype BTV-2, was first introduced into the north African region in 1999 and since then it has spread to almost all the Maghreb countries. However, it may be difficult to rule out circulation of the bluetongue virus in other parts of Africa unless proper surveillance targeting the disease is undertaken.

In 2011, the highest number of bluetongue outbreaks was reported from Tunisia followed

Table 5: Countries reporting blue tongue

by SouthAfrica, and the disease caused mortality of 239 and morbidity of 970 ruminants in all affected countries (table 5).

The distribution and prevalence of the disease is governed by ecological factors (i.e. high rainfall, temperature, humidity and soil characteristics), hence infections have a seasonal occurrence. Based on the reports submitted by Member States in 2011, the occurrence of bluetongue in the affected countries seemed to have two peak seasons: one during the months of January to March and the other in the month of October (chart 4). This phenomenon can be attributed to difference in the period of rainy seasons in the Maghreb and Southern Africa regions.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Algeria	12	48	I	0	0
Lesotho	11	851	233	0	0
Namibia	2	9	0	0	0
South Africa	41				
Tunisia	99	62	5	0	0
Total (6)	165	970	239	0	0





Map 4: Spatial distribution of blue tongue



Chart 4: Monthly Distribution of Bluetongue Outbreaks

4.5. Contagious bovine pleuropneumonia

In 2011, CBPP was reported in eighteen countries spreading across the west, central, east and southern Africa regions (map 5). During the reporting period, 304 epidemiological units were affected by CBPP across Africa involving 16,836 cases and 3,007 deaths, with an estimated case fatality rate of 17.9% (table 6). The highest number of CBPP outbreaks was reported in Ghana (75), followed by the Central African Republic (43) and Ethiopia (29). Out of the 18 affected countries listed in the table above, all except DRC and Gabon have been reporting the disease over the past four years, while Congo DR and Gabon reported the disease for the first time in 2010.

In terms of seasonality, CBPP appears to have no defined trend in 2011 with the disease having been reported throughout the year except for a small variability in the number of reported outbreaks between the months of the year (chart 5).

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Burkina Faso	4	203	45	0	0
Cameroon	8	384	16	41	0
Central African	43	3674	1270	0	0
Republic					
Chad	17	342	200	37	18
Congo, DRC	15	8277	458	1361	0
Cote d'Ivoire	18	595	215	13	7
Ethiopia	29	457	112	12	0
Gabon	3				
Ghana	75	127	I	115	0
Mali	4	204	82	119	0
Niger	6	41	10	0	0
Nigeria	22	489	96	221	9
Somalia	12	69	16	0	0
Sudan	2	202	92	108	0
Tanzania	8	399	177	0	0
Togo	9	13	3	I	0
Uganda	22	1330	193	67	0
Zambia	7	30	21	0	
Total (18)	304	16836	3007	2095	35

Table 6: Countries reporting CBPP



Map 5: Spatial distribution of CBPP



Chart 5: Monthly Distribution of CBPP Outbreaks

CBPP control remains a big challenge for many affected countries. The available control measures include vaccination and movement control, but there is reasonable evidence to suggest that a number of cattle owners have resorted to the indiscriminate use of antibiotics to treat clinical cases. Spread of the disease is largely attributed to uncontrolled movement of cattle.

Against this background, there is need to critically evaluate the effectiveness and efficiency of the current methods being employed to control CBPP in Africa.

4.6. Contagious caprine pleuropneumonia

Seven countries reported occurrence of CCPP in 2011, with Ethiopia, Somalia and Tanzania having reported the disease since 2008. The disease seems to be confined to the central and eastern Africa regions based on the reports received (Map 6). It is however not possible to rule out the presence of CCPP in other parts of the continent as cases of under-reporting and lack of adequate laboratory support to correctly diagnose the disease might be a contributing factor in many countries.



Map 6: Spatial distribution of CCPP Table 7: Countries reporting CCPP

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Cameroun	4	43	4	6	
Chad	17	636	213	49	66
Ethiopia	12	1236	486	15	
Kenya	12	75	19	0	0
Somalia	228	3614	567	65	26
Tanzania	4	223	53	0	0
Togo	3	6	0	0	0
Total (7)	280	5833	1342	135	92



Chart 6: Monthly Distribution of CCPP Outbreaks
In 2011, the disease affected 280 epidemiological units on the continent causing 5,833 cases and 1,342 deaths, with a case fatality rate of 23% (Table 7). The highest fatalities were recorded in Somalia with 567 deaths of goats followed by Ethiopia and Chad with 486 and 213 deaths respectively.

Charting the monthly occurrence reports of CCPP in 2011 revealed that higher incidence of the disease was recorded in the 2nd half of the year suggesting risk factors such as mobility of goats being more prevalent from July to December in the affected countries (Chart 6). However, CCPP was also reported to have occurred in the first half of 2011 at a relatively lower level.

4.7. Foot and mouth disease

Foot and Mouth Disease is one of the most widespread TADs on the African continent (map 7), where the serotypes A, O, SAT I

and SAT 2 were reported in 2011. Some exceptional epidemiological events relating to FMD were notified from the southern part of the continent (South Africa, Botswana, Namibia) due to serotypes O, SAT I and SAT 2.

A total of 902 outbreaks of FMD were reported from 28 countries in 2011 compared to 454 outbreaks from 24 countries in 2010 and 378 outbreaks from 26 countries in 2009 (Table 8). During the year a total of 86,185 cases leading to 2,804 deaths, with an estimated case fatality rate of 3.25% were reported from the infected countries. Ethiopia (721) followed by Eritrea (404), Benin (355), Burkina Faso (305) and Uganda (137) reported the highest number of fatalities within the year.

All the countries listed, except Cote d'Ivoire, Eritrea and Uganda have been reporting FMD outbreaks over the past several years.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	87	8,442	355	179	0
Botswana	3	2,313	0	0	0
Burkina Faso	164	37,121	305	0	0
Cameroon	32	2,481	72	23	NS
Central African Republic	12	1,330	115	0	0
Chad	16	403	77	3	I
Congo DRC	7	325	8	25	I
Côte d'Ivoire	13	791	388	0	105
Eritrea	3	2,321	404	2	400
Ethiopia	87	16,964	721	478	NS
Gambia	I	80	9	0	0
Ghana	66	853	4	16	0
Kenya	28	105	0	0	0
Malawi	2	48	0	0	0
Mali	2	28	0	0	0
Mozambique	5	638	0	0	0
Namibia	2	182	0	0	0
Niger	6	140	9	NS	NS
Nigeria	18	1,142	4	32	2
Senegal	13	198	0	0	0
Somalia	43	428	17	0	0
South Africa	69	NS	NS	NS	NS

Table 8: Countries reporting FMD

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Sudan	8	139	33	I	0
Tanzania		1,389	119	NS	NS
Тодо	95	2,945	9	8	0
Uganda	14	2,230	137	I	0
Zambia	I	2,242	4	NS	NS
Zimbabwe	94	907	4	NS	NS
Grand Total	902	86,185	2,804	768	509

NS=Not specified



Chart 7: Monthly Distribution of FMD Outbreaks

Regarding the monthly distribution, FMD appeared to occur throughout the year (Chart 7). However, the level of FMD occurrence showed a sharp increase between April and September, and a decrease around April and October. It is difficult to explain this kind of trend unless a comprehensive study is undertaken to understand the temporal distribution of the main risk factors underpinning FMD occurrence on the continent.

Table 9 below shows the confirmed serotypes that were involved in some of the outbreaks that occurred between 2006 and 2011. In 2011, only 6 out of 28 (6/28) countries that reported FMD outbreaks provided information about the serotypes, compared to 4/23 and 2/20 and 7/24 in 2008; 2009 and 2010, respectively. It is evident that the serotypes of majority of outbreaks are not known, an indication of either the weakness of the laboratory capacity or lack of laboratory support to FMD outbreak investigations in the continent. It is also apparent that majority of the reported cases were diagnosed based on clinical signs further demonstrating the weak link between field epidemiological investigation and laboratory diagnosis. For countries that use vaccination as a control measure, effectiveness of the vaccination campaign largely depends on knowing the serotype involved as there is no cross protection between different serotypes. Other control measures reportedly used include movement control, slaughter and quarantine.

During the year under review, Mauritius and Madagascar maintained their "FMD freedom without vaccination" status as per the OIE code, whereas Botswana and Namibia maintained "FMD free zones where vaccination is practiced". However, the FMD free zone status of South Africa without vaccination is no longer recognized by the OIE as it was suspended since 25 February 2011 following outbreaks of FMD in the districts of Jozini and Umhlabuyalingana in the KwaZulu-Natal province.

It is probably the geographical location of Madagascar and Mauritius as islands that enabled them establish and maintain their FMD country freedom status. Cattle production systems across Africa largely fall either in



Map 7: Spatial distribution of FMD

Table 9: Countries that	Confirmed FMD	serotypes in Africa fror	n 2006 to 2011
	1	// / /	

	FMD Serotypes				
Country	2006 & 2007	2008	2009	2010	2011
Benin	NS	O, SAT 1 & 2	O, SAT 1 & 2	A, O, SAT I, SAT 2	A, O, SAT I, SAT 2
Botswana	SAT I & 2	SAT 2	NS	NS	NS
DRC	0	NS	NS	NS	NS
Egypt	A, O	NS	A, O	NS	NS
Ethiopia	0	NS	NS	NS	NS
Mauritania	A	NS	NS	NS	NS
Mozambique	NS	NS	NS	SAT 2	SAT 2
Namibia	NS	NS	NS	SATI	SATI
Rwanda	NS	A, O, SAT 2	A, O, SAT 2	A, O, SAT2	NS
Senegal	NS	NS	NS	NS	A, O
South Africa	SAT I & 3	NS	NS	SAT 2	A, O
Togo	NS	O, SAT I	O, SAT I	O, SAT I	NS
Uganda	NS	NS	NS	NS	A, O
Zimbabwe	NS	NS	NS	SAT I,SAT 2	NS

NS: Not specified

the pastoral or sedentary categories. The predominantly sedentary system in Southern Africa has enabled Botswana, Namibia and South Africa to establish OIE recognized free zones. Furthermore, these zones have largely been supported by the erection of fences which are not practical in the predominantly pastoral systems of production elsewhere in Africa.

4.8 Lumpy skin disease

During 2011, 26 African countries reported outbreaks of LSD (map 8). A total of 902 epidemiological units were affected by the disease involving 33,750 cases and 1,305 deaths. The highest number of cases in 2011 were reported from DRC (7,551), followed by Ethiopia (6,226), Uganda (5,824), Burkina Faso (4,013), and Madagascar (3,767) (Table 10). Given the mode of transmission of LSD, the low figures for outbreaks as reported by Cameroon, Gambia, Mali, Niger, Senegal and Somalia may reflect underreporting.

Although LSD seems to have occurred throughout the year, a relatively higher number of outbreaks were reported during the cooler periods of November, December, January, February and March, which may be attributed to a higher abundance of vectors during that period in the severly affected countries (Chart 8).

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	9	156	5	0	0
Botswana	20	89	19	0	0
Burkina Faso	82	4,013	161	0	0
Cameroon	I	3	0	NS	NS
Congo, DRC	8	7551	0	67	0
Ethiopia	187	6226	544	29	
Ghana	12	127	15	4	0
Guinea Cona-	34	220	5	0	0
КГУ	12	22	0	0	0
Kenya	12	23	0	0	0
Lesotho		194	14	0	0
Madagascar	43	3767	57	NS	7
Mali		9	2		0
Mozambique	2	12	0	0	0
Namibia	40	249	9	0	0
Niger	I	0	I	NS	NS
Nigeria	5	23	I	9	
Senegal	I	20	0	0	
Somalia	I	14	I	0	0
South Africa	146	NS	NS	NS	NS
Sudan	9	549	103	0	0
Swaziland	158	1300	54	0	0
Tanzania		1097	52	NS	NS
The Gambia	2	10	I	0	0
Togo	6	33	I	5	0
Uganda	63	5824	210	102	0
NS=Kambiaecifie	d 37	2241	50	NS	NS
Total (26)	902	33750	1305	217	7

 Table 10: Countries reporting LSD



Map 8: Spatial distribution of LSD during 2011 in Africa.



Chart 8: Monthly Distribution of LSD Outbreaks

4.9. Newcastle disease

Thirty one African countries covering the west, east and southern Africa regions (Map 9) reported ND in 2011. Overall, the disease affected a total of 1,031 epidemiological units involving 487,206 cases and 326,706, with a case fatality rate of 67.1% (table 11). The 3 countries with the highest number of outbreaks are Ghana (216), Benin (152) and Uganda (120). Sierra Leone and Liberia reported ND for the

first time in 2010 and continued reporting in 2011, indicating the impacts of capacity building programs provided through SPINAP and VACNADA projects for improving disease surveillance and reporting. Generally, all other countries have consistently reported ND during the past four years, consistent with the known endemicity of the disease on the African continent.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	152	12,769	5,512	I,207	3
Botswana	2	10	172	0	0
Burkina Faso	66	7,532	3,511	0	0
Cameroon		I,482	771	0	
CAR	12	3,645	2,373	0	0
Chad	39	4,977	3,697	148	3,255
Congo	6	139	52	0	0
Congo, DRC	45	175,185	214,145	36,725	2,659
Cote d'Ivoire	9	23,346	4740	I,550	I,300
Ethiopia	60	8,883	2693	863	
Gambia	3	I,423	1,415	2	0
Ghana	216	57,093	18,973	0	550
Guinea	9	1,415	1019	228	5
Guinea-Bissau	7	364	238	57	11
Kenya	23	672	84	0	0
Lesotho	3	65	65	325	0
Liberia	I	91	91	33	0
Madagascar	16	973	883	0	88
Malawi	I	130	100	0	0
Mali	3	2,652	2,564	38	
Mozambique	2	6,236	6,236	0	3,800
Niger	I	45	0	0	0
Nigeria	35	2,548	1,230	190	18
Senegal	I	330	300	0	0
Sierra Leone	9	2500	2,232	0	0
South Africa	23				
Swaziland	8	118	20	0	0
Tanzania	13	10,224	1721	0	0
Togo	57	13,173	9101	122	167
Uganda	120	134,624	31,177	13,033	787
Zambia	78	14,653	11,591	0	0
Total (31)	1,031	487,206	326,706	54,521	12,643

Table 11: Countries reporting ND

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Map 9: Spatial distribution of ND during 2011



Chart 9: Monthly Distribution of ND Outbreaks

There appears to be no temporal trend for ND occurrence on the continent, suggesting the lack of seasonality for the risk factors that determine occurrence and maintenance of the disease (Chart 9).

4.10. Peste des petits ruminants

The number of countries reporting PPR outbreaks has increased from 19 in 2008 to 20 in 2009, 25 in 2010 and 27 in 2011. Although the west, central and eastern Africa regions are regarded largely as endemic foci for PPR, the

disease has been showing geographical advances towards the southern and northern regions of Africa with Tanzania (2008) and Zambia (2010) in the south and Algeria (2011) in the north becoming the most recently infected countries on the continent.

Out of the 27 countries that reported the disease in 2011, a majority also recorded the disease during the past three years (Map 10). In total, 1,185 epidemiological units were affected by PPR in 27 countries causing 101,016 cases and 62,388 deaths with a case fatality rate of

61.8%. The top three countries with the highest number of outbreaks in descending order are Benin (285), Ghana (184) and Nigeria (126), all in West Africa (table 12).

There appears to be no defined temporal trend for appearance of the disease as it occurs

 Table 12: Countries reporting PPR

virtually throughout the year (Chart 10).

4.11. Sheep and goat pox

Although the number of countries affected by sheep pox and goat pox (SGP) had shown an increasing trend for three consecutive

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	285	12,559	3,248	2,516	14
Burkina Faso	7	745	270	0	0
Cameroon	19	315	102	12	0
CAR	34	2,734	1,571	0	16
Chad	19	425	252	21	26
Congo	37	١,65١	889	5	2
DRC	70	62,635	49,121	16,237	I
Cote d'Ivoire	28	1,283	513	112	21
Ethiopia		2,113	527	62	50
Gabon	I	50	50	0	0
Gambia	2	20	15	2	20
Ghana	184	2,319	823	87	22
Guinea	24	542	321	40	3
Guinea-Bissau	13	316	238	13	0
Liberia	I		87	0	0
Mali	3	272	76	14	0
Mauritania	6	82	3	0	0
Niger	16	990	523		2
Nigeria	126	5,610	1533	688	17
Senegal	5	102	68	18	0
Sierra Leone	12	486	255	0	8
Somalia	20	352	I 48	28	10
Sudan	30	I,367	585	0	0
Tanzania	2	28	23		38
Togo	101	2,467	980	92	
Tunisia	25	178	22	0	1199
Uganda	4	1,375	145	0	0
Total (27)	1,185	101,016	62,388	19,947	1,450



Map 10: Spatial distribution of PPR



Chart 10: Monthly Distribution of PPR Outbreaks

years before 2011, the number of countries reportedly affected by SGP in 2011 reduced remarkably from the previous year. In 2011, twelve countries reported occurrence of SGP in their territories, which is a 46% reduction from the 26 countries affected by the disease in 2010 (Table 13 and Map 11). There is no plausible explanation for this decrease in reporting as there is no ongoing continental program against SGP although there might be national interventions against the disease. The top three countries that recorded the highest number of outbreaks in 2011 include Ethiopia (283), Somalia (170) and Algeria (44) in a decreasing order. Overall, a total of 541 epidemiological units were affected on the continent involving 9,932 cases and 1,619 deaths, with a case fatality rate of 16.3%.

Like many other TADs, the monthly distribution of occurrence of SGP did not show any temporal trend with outbreaks reported throughout the year with no marked seasonal variability (Chart 11). It is difficult to provide any plausible

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Algeria	44	306	14	0	0
Cameroon	2	15	0	0	
Ethiopia	223	4,827	815	90	
Ghana	I	2	0	0	0
Kenya	2	9	0	0	0
Lesotho	I	5	0	0	0
Niger	41	945	235	NS	NS
Nigeria	2	33	7	9	5
Senegal	7	410	28	0	0
Somalia	170	2,393	324	49	47
Sudan	29	859	185	5	0
Tunisia	19	128		5	15
Total (12)	541	9,932	1,619	158	67

Table 13: Countries reporting sheep pox and goat pox



Map 11: Spatial distribution of SGP during 2011 in Africa.

explanation for this kind of temporal trend, not only for SGP but also for many other reported TADs, unless focused studies are carried out to shed light on as to why there is no defined seasonality of disease occurrence, particularly of those diseases whose occurrence is underpinned by climatic parameters.

4.12 Rift Valley fever

Considering the RiftValley Fever (RVF) situation on the African continent, the Republic of South Africa (RSA) is the only country that has consistently reported outbreaks of the disease during the past four years. Though neighbors, it is still not clear whether the outbreaks reported in neighboring Botswana (in 2010)



Chart II: Monthly Distribution of SGP Outbreaks

and Namibia (in 2010 and 2011) were linked to the situation in RSA. During the year under review, RVF was reported by only 4 countries: RSA (74), Mauritania (3), Namibia (2) and Comoros (1) (table 14 and map 12). Although the number of RVF affected countries in 2011 remained the same as that of 2010, there was a remarkable reduction in the number of affected epidemiological units from 330 in 2010 to 80 in 2011 (with 92.5% of the outbreaks occurring in South Africa).

Though available data may not be enough to give full details of RVF progression in RSA

over the past four years, the zoonotic nature of the disease and the magnitude of its spread in that country during the past few years justify its special consideration. The number of outbreaks has steadily increased from 34 in 2008 to 41 in 2009 followed by an eight fold jump to 330 in 2010. However, the number of reported outbreaks declined remarkably fivefold in 2011 with only 74 as compared to the 330 epidemiological units affected in 2010. Although not clearly indicated in their monthly reports, this outcome may be attributed to the coordinated control measures put in place by the RSA.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Comoros	I	*NS	0	0	0
Mauritania	3	NS	NS	NS	NS
Namibia	2	55	27	0	0
South Africa	74	NS	NS	NS	NS
Total (4)	80	55	27	0	0

Table 14. Countries reporting iter	Table	I4:	Countries	reporting	RVF
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Map 12: Spatial distribution of RVF

5. SITUATION OF OTHER IMPORTANT DISEASES REPORTED

5. I Anaplasmosis

Anaplasmosis was reported in 14 countries in Africa in 2011(Table 14). During the year 983 outbreaks were recorded involving 872 deaths. The highest number of outbreaks were reported by Zimbabwe (533) followed by Zambia (100) and Kenya (88). The geographical distribution of the disease (Map 13) shows that it was mainly recorded in the southern parts of the continent.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Botswana	7	19	61	0	0
Comoros	I	2	0	0	0
Congo DRC	I	12	NS	NS	NS
Egypt	69	291	NS	NS	NS
Kenya	88	93	I	0	0
Lesotho	19	41	3	0	0
Madagascar	18	102	8		5
Mozambique	7	45	6	0	0
Namibia	3	6	6	0	0
Somalia	57	592	30	I	4
Swaziland	42	57	30	3	0
Tanzania	38	18,264	42	NS	NS
Zambia	100	1,713	387	NS	NS
Zimbabwe	533	I,086	288	NS	NS
Total (14)	983	22,323	872	4	9



Map 13: Spatial distribution of Anaplasmosis

5.2 Anthrax

Telluric disease caused by Bacillus anthracis, Anthrax is a disease of public health importance since it also affects man and can be fatal. In 2011, 21 Member States that reported Anthrax to AU-IBAR recorded a total of 629

Table 15: Countries reporting anthrax

outbreaks, 5,655 cases and 1,735 deaths. The highest number of outbreaks were reported by Ethiopia (452), followed by Somalia (44) and South Africa (25). The highest number of deaths was also recorded by Ethiopia (1,102), followed by Zimbabwe (119), Guinea Bissau (109) and Cote d'Ivoire (103).

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Burkina Faso	5	25	19	0	0
Cameroon	I	4	4	0	NS
Chad	4	26	16	3	8
Côte d'Ivoire	12	356	103	0	33
Eritrea	2	1,722	22	2	19
Ethiopia	452	2,747	1,102	424	NS
Ghana	11	69	65	I	0
Guinea Bissau	10	191	109	4	0
Guinea Cona-	19	154	72	0	
kry					
Kenya	5	6	4	0	0
Liberia	I	I	I	0	0
Namibia	I	4	2	0	0
Niger	7	10	9	0	0
Senegal	I	2	2	0	NS
Sierra Leone	2	18	10	0	0
Somalia	44	188	65	0	0
South Africa	25	NS	NS	NS	NS
Togo	4	4	4	NS	NS
Uganda	5	9	6	3	0
Zambia	2	I	I	NS	NS
Zimbabwe	16	118	119		
Total (21)	629	5,655	1,735	437	71



Map 14: Spatial distribution of Anthrax

5.3 Babesiosis

During 2011, Babesiosis was reported by 15 countries who recorded a total of 1,012 outbreaks, 37,525 cases and 271 deaths (Table 17). Egypt recorded the highest number of

outbreaks (601) followed by Zimbabwe (219) and Swaziland (50). The corresponding number of cases was highest in Egypt (29,624), followed by Tanzania (6,521) and Zimbabwe (478). Map 15 shows the spatial distribution of Babesiosis in 2011.

Table 17: Countries reporting Babesiosis in Africa in 2011

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	5	22	0	3	NS
Comoros	1	8	0	0	0
Egypt	601	29,624	18	NS	NS
Ethiopia	1	1	0	0	NS
Kenya	26	27	0	0	0
Lesotho	10	26	7	0	0
Madagascar	3	101	8	NS	NS
Mozambique	2	9	7	0	0
Nigeria	2	2	I	0	0
Somalia	22	237	31	0	0
Sudan	2	61	14	5	0
Swaziland	50	103	59	0	0
Tanzania	25	6,521	2	NS	NS
Zambia	43	305	35	NS	NS
Zimbabwe	219	478	89	NS	NS
Total (15)	1,012	37,525	271	8	0



Map 15: Spatial distribution of Babesiosis in 2011 in Africa

5.4 Blackleg

In 2011, Blackleg was reported by a total of 23 countries (Table 18). Countries reporting the disease recorded a total of 969 outbreaks, 9,633 cases and 1,826 deaths. Ethiopia recorded the

highest number of outbreaks (412), followed by Zimbabwe (303) and Swaziland (121). Ethiopia also recorded the highest number of cases (5,326), followed by Lesotho (1,876) and Swaziland (370). Map 16 shows the spatial distribution of Blackleg in 2011

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Botswana	3	19	17	0	0
Cameroon	I	3	0	NS	NS
Chad	14	98	56	8	13
Comoros	I	0	0	0	80
Congo DRC	10	43	95	6	0
Ethiopia	412	5,326	719	95	NS
Gambia	3	22	22	9	0
Ghana	2	9	0	2	0
Guinea Bissau	8	37	23	0	0
Kenya	17	18	2	0	0
Lesotho	3	I,876	I	0	0
Madagascar	7	135	31		5
Malawi	4	226	80	0	0
Namibia		2	0	0	0
Niger	7	10	4	NS	NS

 Table 18: Countries reporting blackleg

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Nigeria	2		4	NS	NS
Senegal	I	2	2	0	NS
Sierra Leone	I	44	13	0	0
Swaziland	121	370	94	0	0
Tanzania	7	28	5	NS	NS
Togo	I	I	0	0	I
Zambia	40	346	138	NS	NS
Zimbabwe	303	I,007	520	NS	NS
Total (23)	969	9,633	1,826	120	99



Map 16: Spatial distribution of Blackleg in 2011 in Africa

5.5 Brucellosis

During the year under review, 18 countries reporting the disease recorded a total of 1,066 outbreaks, 136,987 cases and 709 deaths (Table 19). The highest number of outbreaks was

 Table 19: Countries reporting Brucellosis

reported by Algeria (367), followed by South Africa (282) and Egypt (165). Uganda reported the highest number of cases (136,987) followed by Egypt (1,120) and Algeria (1,019). Map 17 presents the spatial distribution of Brucellosis in 2011.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Algeria	367	1019	0	979	40
Congo DRC	7	375	28	173	I
Egypt	165	1120	NS	NS	NS
Ghana	3	30	16	2	0
Liberia	I	688	586	0	0
Mozambique	19	245	3	118	0
Namibia	3	6	I	0	0
Sierra Leone	I	21	17	0	0
Somalia	19	111	21	9	7
South Africa	282	NS	NS	NS	NS
Sudan	2	11	0	11	0
Swaziland	126	747	0	0	0
Tanzania	I	521	NS	NS	NS
Togo	10	22	0	5	0
Tunisia	14	103	0	0	0
Uganda	29	131899	30	5	0
Zambia	4	25	0	NS	NS
Zimbabwe	13	44	7	NS	NS
Total (18)	I,066	136,987	709	1,302	48



Map 17: Spatial distribution of Brucellosis

5.6 Contagious ecthyma

In 2011, contagious ecthyma otherwise referred to as Orf, Contagious pustular dermatitis or Sore mouth was reported by 8 countries. A total of 392 outbreaks, 2,166 cases and 68 deaths were recorded. The highest number of outbreaks were reported by Ghana (355) followed by Uganda (19). The corresponding number of cases were highest in Ghana (1238) followed by Uganda (772). Table 20 shows the breakdown of contagious ecthyma outbreaks by reporting countries. The spatial distribution of the disease is shown on map 18

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Comoros	3	8	0	0	0
Congo Braz- zaville	6	83	15	0	0
Ghana	355	I,238	7	39	0
Nigeria	I	5	2	0	0
Senegal	I	5	0	0	NS
Sierra Leone	4	50	5	0	0
Togo	3	5	0	0	NS
Uganda	19	772	39	6	0
Total (8)	392	2,166	68	45	0

Table 20: Countries reporting contagious ecthyma



Map 18: Spatial distribution of contagious ecthyma

5.7 Dermatophilosis

Dermatophilosis is also known as streptothrichosis and sometimes improperly called mycotic dermatitis, due to actynomyces bacterium, Dermatophilus congolensisis. Dermatophilosis was reported by 12 countries during the year (Table 21). A total of 547 outbreaks, 4,924 cases and 241 deaths were

Table 21	: Countries	reporting	Dermatophilosis
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recorded. The highest number of outbreaks were reported by Zimbabwe (324), followed by Zambia (80) and Ghana (71).The corresponding number of cases were highest in Congo DRC (1,645) followed by Zimbabwe (1,561), Zambia (921), Madagascar (344) and Ghana (309). Map 19 shows the spatial distribution of Dermatophilosis in 2011.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Botswana	I	15	2	0	0
Cameroon	I	8	0	NS	NS
DRC	3	1645	17	1198	I
Ethiopia	3	10	4	2	NS
Ghana	71	309	12	47	0
Lesotho	I	5	0	0	0
Madagascar	29	344	I	NS	NS
Niger	9	64	5	NS	NS
Nigeria	8	19	0	8	0
Togo	17	23	0	0	0
Zambia	80	921	40	NS	NS
Zimbabwe	324	1561	160	NS	NS
Total (12)	547	4,924	241	1,255	I





5.8 Gumboro disease (Infectious Bursal disease)

Infectious Bursal Disease (IBD) or Gumboro disease was reported by 12 countries during the year under review. A total of 174 outbreaks, 53,235 cases and 15,021 deaths were recorded (Table 22). The highest number of outbreaks were reported by Ghana (60),

Table 22: Countries	reporting	Gumboro	disease
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followed by Zambia (38) and Zimbabwe (26). The corresponding number of cases were highest in Uganda (20,706), followed by Ghana (15,868), Eritrea (5,100), Congo DRC (3,341) and Zambia (3,285). The highest number of deaths was recorded in Ghana (5,951) followed by Eritrea (2,400) and Uganda (1,931). Map 20 shows the spatial distribution of Gumboro disease in 2011.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	I	780	780	NS	NS
Botswana	5	I,338	I,335	0	0
Cameroon	4	I,587	661	0	NS
Congo DRC	I	3,341	601	NS	NS
Eritrea	2	5,100	2,400	NS	NS
Ghana	60	15,868	5,951	0	0
Madagascar	I	60	40	NS	NS
Namibia	I	30	0	0	NS
Nigeria	12	472	227	0	34
Uganda	23	20,706	1,931	432	1292
Zambia	38	3,285	796	NS	NS
Zimbabwe	26	668	299	NS	NS
Total (12)	174	53,235	15,021	432	1,326

Table	22: Countries	reborting	Gumboro	disease
i a si c		reporting	Gamboro	0.50050



Map 20: Spatial distribution of Gumboro disease

5.9. Heartwater

Heartwater or Cowdriosis is an infectious, non contagious, rickettsial disease of ruminants in areas infested by ticks of the genus Amblyomma. These include regions of Africa south of the Sahara and the islands of the Comoros, Zanzibar, Madagascar, Sao Tomé, Réunion, and Mauritius. Many ruminants, including some antelope species, are susceptible. Molecular evidence led to reclassification of several organisms in the order Rickettsial, and it is now classified as Ehrlichia ruminantium. There is as yet no widely
 Table 23: Countries reporting Heartwater

effective and safe vaccine available to immunize against E. ruminantium. In 2011, 14 countries reported the occurrence of Heartwater where a total of 810 outbreaks 9,546 cases and 977 deaths were recorded (Table 23). Zimbabwe (364) reported the highest number of outbreaks, followed by Botswana (88), Zambia (74), and Swaziland (68). The corresponding number of cases were highest in Tanzania (6,680), followed by Zimbabwe (826), Zambia (470) and Somalia (396). Map 20 shows the spatial distribution of Heartwater in 2011.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Botswana	88	335	260	0	0
Comoros	I	0	0	0	0
Eritrea	I	7	7	7	
Ghana	34	63	0	22	0
Kenya	60	94	5	0	0
Madagascar	19	140	14	NS	2
Mozambique	8	36	19	0	0
Somalia	63	396	80	4	0
Sudan	4	106	47	0	2
Swaziland	68	120	56	0	0
Tanzania	10	6,680	5	NS	NS
Togo	16	273	45	2	2
Zambia	74	470	144	NS	NS
Zimbabwe	364	826	295	NS	NS
Total (14)	810	9,546	977	35	6



Map 20: Spatial distribution of Heartwater

5.10 Mange

Mange is a skin disease of mammals caused by a tissue-burrowing arthropod, the mange mite. It is a common skin mite of small ruminants in many parts of the world especially in sub-Saharan region. Mange is not associated with heavy mortalities but is a serious cause of skin defects and economic loss in term of loss of productivity of affected animals.

Ten African countries reported 900 outbreaks of mange in 2011. Countries reporting the disease recorded a total of 25,549 cases and 202 deaths (Table 24). Map 21 shows the spatial distribution of Mange in Africa in 2011.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Botswana	4	21	3	0	0
Congo DRC	I	16582	0	104	0
Ghana	785	7662	121	142	0
Kenya	8	27	2	0	0
Namibia	9	168	2	0	0
Nigeria	24	88	2	4	0
Sierra Leone	10	431	51	0	0
Sudan	I	60	0	0	0
Swaziland	4	12	0	0	0
Zimbabwe	54	498	21	NS	NS
Total	900	25,549	202	250	0

Table 24: Countries reporting Mange



Map 21: Spatial distribution of Mange

5.11 Pasteurellosis

During 2011, 13 countries reporting pasteurellosis recorded a total of 1,016 outbreaks, 14,014 cases and 3,284 deaths (Table 25) compared to 2010 when 23 countries reported the diseases. Similar to the previous

Table 25: Countries reporting Pasteurellosis

year, Ethiopia recorded the highest number of outbreaks (570) followed by Niger (184) and Benin (77). Ethiopia reported also the highest number of deaths (1,633) followed by Niger (585) and Benin (269). Map 22 shows the spatial distribution of the disease in 2011.

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	77	2,444	269	183	0
Burkina Faso	40	609	85	0	0
Chad	14	670	248	14	4
Ethiopia	570	7,468	I,633	268	
Gambia		232	113	25	0
Guinea Conakry	19	158	56	20	15
Madagascar	7	53	14	NS	NS
Namibia	I	3	3	0	0
Niger	184	I,377	585	NS	NS
Senegal	14	477	129	I	0
Somalia	64	413	106	0	0
Sudan	4	70	26	3	0
Zambia		40	17	NS	NS
Total (13)	1,016	14,014	3,284	514	19



Map 22: Spatial distribution of Pasteurellosis in Africa in 2011

5.12 Rabies

Rabies is common and enzootic in most African countries. A total of 34 countries have reported 1,608 outbreaks of rabies in 2011. Rabies had the highest number of outbreaks and accounted for 7.2% of all the disease outbreaks reported in 2011. It is also the most widely distributed zoonotic disease in Africa affecting 34 countries in all the regions of the continent. Algeria, South Africa and Namibia recorded the highest number of outbreaks with 522, 236 and 183 respectively (Table 26).

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Algeria	522	563	191	2	476
Benin	I	I	NS	NS	NS
Botswana	41	37	45	0	0
Cameroon	3	3	3	0	NS
Central African	2	10	4	0	0
Republic					
Chad	2	2	0	I	2
Congo DRC	18	77	80	0	5
Côte d'Ivoire	13	17	17	I	5
Eritrea	I	I	I	NS	I
Ethiopia	38	325	187	4	NS
Gabon	3	3	3	0	0
Gambia	3	3	3	0	0
Ghana	44	49	35	0	15
Kenya			6	0	I
Lesotho		21	22	0	0
Liberia	I	15	14	0	9
Madagascar	3	9	9	NS	NS
Malawi	4	4	4	NS	NS
Mauritania	12	12	9	0	3
Mozambique	2	3	I	0	I
Namibia	183	269	253	0	0
Nigeria	14	30	10	3	
Rwanda	40	86	59	0	795
Senegal	18	38	36	0	0
Somalia	5	10	10	0	0
South Africa	236	NS	NS	NS	NS
Sudan	I	I	I	0	0
Swaziland	57	62	55	3	4
Tanzania	10	214	27	NS	NS
Togo	14	25	6	16	2
Tunisia	106	91	82	62	34
Uganda	74	466	191	119	52
Zambia	42	207	68	NS	NS
Zimbabwe	73	114	92	NS	NS
Total (34)	1,608	2,779	1,524	211	1,416

Table 26: Countries reporting Rabies

Map 23 shows the spatial distribution of Rabies outbreaks in Africa in 2011. Although Rabies is one of the major zoonotic diseases, reports on its situation from many countries were often incomplete. There were many gaps in many of the reports received in 2011, most of which did not capture the number of outbreaks, cases, mortalities, species involvement, sources of infection and the number of human cases. These parameters are essential to substantiate the impact of Rabies on public health. Nevertheless, available data calls for an urgent, concerted and coordinated effort in controlling the disease in Africa considering its impact on human health Dog was the most commonly affected species (Figure 19), constituting 63% of all cases followed by cattle (16%) and sheep and goat (4%). Rabies cases in wildlife were especially reported by Namibia where 59 cases of a total of 70 reported cases occurred in the wildlife. The species most affected were Greater Kudu Antelope and Jackal.



Figure 21: Proportion of species affected with rabies during 2011



Map 23: Spatial distribution of Rabies outbreaks

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5.13 Theileriosis

Bovine Theileriosis is also known as East Coast Fever (ECF), Egyptian Fever, Tropical Theileriosis, Mediterranean Coast Fever and Corridor disease. East coast fever is essentially present in central and eastern Africa. Mediterranean coast fever is present in northern Africa, southern Europe, Middle East and central Asia.

For the analysis and presentation of this report, Theileriosis, East Cost fever and Corridor Disease were all taken as Theileriosis. During 2011, ten (10) countries reported 1,942

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Benin	477	83,257	I,008	993	
Botswana	7	10	2	0	0
Cameroon	5	121	I	0	
Congo DRC	32	19,902	3,696	520	78
Côte d'Ivoire	4	998	556	27	229
Egypt	71	277		NS	NS
Ethiopia	2	33	18	0	
Gambia	3	204	14	76	0
Ghana	15	132	11	28	0
Kenya	224	367	24	0	0
Mozambique	3	28	0	0	0
Namibia	7	10	0	0	0
Nigeria	I	7	0	0	0
Sierra Leone	5	257	105	0	0
Somalia	476	3,579	321	31	94
South Africa	5	NS	NS	NS	NS
Tanzania	21	3,155	21	NS	NS
Togo	84	906	38	5	8
Uganda	130	80,850	444	584	33
Zambia	39	1732	187	NS	NS
Zimbabwe	18	98	26	NS	NS
Total	1,629	195,923	6,472	2,264	453

 Table 28: Countries reporting Trypanosomosis

NS=Not specified

5.14. Trypanosomosis

During 2011, 21 countries reported outbreaks of Trypanosomosis, compared to 23 countries in 2010 and 19 countries in 2009. The 21 countries recorded 1,629 outbreaks involving 195,923 cases and 6,472 deaths (Table 28). Countries with the highest number of cases included Benin (83,257), Uganda (80,850) and Congo DRC (19,902). Map 25 shows the spatial distribution of trypanosomosis in 2011.

outbreaks of Theileriosis, with 28,427 cases and 2133 deaths. The number of outbreaks recorded was highest in 2011 compared to previous

years. The disease was reported mainly in the

eastern part of the continent. Kenya recorded

the highest number of outbreaks (1,356),

Tanzania, the highest number of cases (14,700) and Zambia, the highest number of deaths

(1,444). Table 27 shows details of the reporting

countries with the related quantitative data

while Map 24 shows the spatial distribution of

Theileriosis in Africa in 2011.



Map 25: Spatial distribution of Trypanosomosis

5.15 Tuberculosis

In the year, a total of 21 countries reported 1,123 outbreaks of Tuberculosis against 15 in 2010. Similar to the number of affected countries, the total of 4,950 cases and 3,364

animals slaughtered is a significant increase compared to the situation 2010. DRC recorded the highest number of cases (1,944), followed by Tunisia (1,047), Malawi (391) and Cote d'Ivoire (296). Map 26 shows the spatial distribution of Tuberculosis in 2011.

Table 2	29: Countrie:	s reporting	Tubercu	losis

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
Algeria	121	192	0	192	0
Benin	17	507	48	397	0
Botswana	I	3	I	0	0
Chad	4	6	2	I	2
Comoros	2	3	0	0	NS
Congo Brazza- ville	2	4	0	0	8
Congo DRC	31	I,944	23	I,069	0
Côte d'Ivoire	24	296	83	274	23
Egypt	47	145	0	86	0
Ethiopia	I	5	0	0	NS
Ghana	88	182	0	182	0
Madagascar	4	7	7	NS	I
Malawi	34	391	NS	NS	NS
Mozambique	7	20	9	5	
Nigeria	7	10	2	14	0

Country	Outbreaks	Cases	Deaths	Slaughtered	Destroyed
South Africa	37	NS	NS	NS	NS
Tanzania	I	I	0	NS	NS
Togo	78	139	5	60	9
Tunisia	605	I,047		I,074	NS
Uganda	9	44	0	10	6
Zambia	3	4	4	NS	NS
Total (21)	1,123	4,950	184	3,364	60



Map 26: Spatial distribution of Tuberculosis in Africa in 2011

6.1. Improving Veterinary Governance in Africa

Veterinary Services in Africa play a key role in controlling animal diseases by means of surveillance of animal diseases (including zoonoses), early detection and rapid response. To improve animal health in Africa, and in particular to control emerging and re-emerging diseases, it is necessary to build the capacity of Veterinary Services and improve their governance, in accordance with the quality standards in the Terrestrial Animal Health Code, which were adopted by all Member Countries and Territories of the World Organisation for Animal Health (OIE). In 2011, AU-IBAR concluded a programme funded by the European Union (EU) to address the veterinary governance in Africa. The programme adopted aims at reinforcing veterinary governance in Africa (VET-GOV). The VET-GOV Programme contributes to the overall strategic objective of AU-IBAR, which is: "To improve the contribution of livestock to food security and safety, economic growth and wealth creation in Africa".

The specific objective is "To improve the institutional environment at national and regional levels to provide effective and efficient animal health services in Africa"

The expected results are as follows:

- **Result1:** Knowledge and awareness for institutional strengthening enhanced;
- **Result 2:** Institutional capacity for livestock policy formulation, animal health strategies and legislation enhanced;
- **Result 3:** Institutional capacity for the implementation of policies and enforcement of regulations enhanced;

6.2. Control of major Transboundary Animal Diseases (TADs)

6.2.1. Mass vaccination campaigns

AU-IBAR, through the Vaccine for the Control of Neglected Animal Disease in

Africa (VACNADA) and Livestock Emergency Intervention in Somalia (LEISOM) projects, funded by the EU, significantly contributed to reduce the impact of the following major transboundary animal diseases: Peste des Petits Ruminants (PPR), Newcastle disease (ND), contagious bovine pleuropneumonia (CBPP) and Sheep and Goats pox (SGP). Massive vaccination campaigns, seromonitoring and serosurveillance were the main control measures used in 30 beneficiary countries (29 for VACNADA and Somalia for LEISOM). Map 27 indicates the geographical coverage of AU-IBAR intervention in disease control in Africa in 2011 under these 2 projects. Vaccines were procured from various laboratories in Africa and Middle East for beneficiary countries to undertake the mass vaccination campaign. A total of 83,060,350 doses of vaccines (78,060,350 doses for VACNADA and 5,000,000 doses for LEISOM) were supplied to beneficiary countries and 49,185,953 animals were vaccinated (44,600,000 animals for VACNADA and 4,585,953 animals for LEISOM in Somalia). For VACNADA, 44.6 million livestock out of a target of 50.2 million were vaccinated thus representing 88.9% vaccination coverage. The vaccinated animals included 4.6 million cattle against CBPP, 17.8 million sheep and goats against PPR, 4.5 million goats against CCPP and 17.6 million chickens against ND. This represented 103% coverage in cattle, 92% coverage in sheep and goats, 129% coverage in goats and 77% coverage in chicken against CBPP, PPR, CCPP and ND respectively. The map below shows the geographical coverage of

6.2.2. Treatment of selected diseases

VACNADA and LEISOM project.

Alongside the mass vaccination campaigns in Somalia, AU-IBAR supported treatment of animals against various endemic diseases. During 2010 and 2011, a combined total of 1,826,211 animals were treated against the targeted 240,000 animals under the VACNADA and LEISOM projects. It is estimated that a total of 162,944 households benefitted from these interventions.



Map 27: Geographical coverage of VACNADA and LEISOM projects

6.2.3. Capacity building

In 2011, AU-IBAR, through its various projects and programmes and in partnerships with other regional and international institutions, has built various capacities at both the national and regional levels through the RECs. The capacity built in 2011 focused on training, vaccine production and diagnosis laboratories.

6.2.3.1. Human resource capacity building

6.2.3. I.I. Veterinary services

Veterinary services are generally insufficiently developed in most of the African countries. The situation is particularly true in remote, dry land areas inhabited by pastoral and agro-pastoral communities. These areas are characterized by their large size, harsh climate conditions, poor infrastructure, and relatively small but mobile human populations. These factors represent constraints to conventional fixed-point service delivery through facilities such as government or private, urban-based veterinary clinics. In building resilience and reducing livestock vulnerability to drought and climate change, the provision of timely veterinary services can play a crucial role in reducing livestock mortality from preventable and treatable diseases. In order to strengthen and enable the veterinary service personnel to undertake the mass vaccination campaign, serum sampling and treatment activities using a harmonized approach, AU-IBAR through the LEISOM and Livestock for Livelihoods (L4L) projects trained veterinary personnel including community based animal health workers (CBAHWs). To this effect, a total of 114 veterinary personnel, consisting of members of 26 veterinary teams and supervisory staff in Somalia (LEISOM) and 100 CBAHWs (including 14 women) (L4L), underwent training.

6.2.3. I.2. Laboratories

The weakness of African countries' diagnosis laboratories cannot be overemphasized and qualified and specialized trained laboratory staff is crucial for effective diagnosis and early detection of animal diseases.AU-IBAR, through the VACNADA project undertook several training sessions in each supported vaccine production laboratory and one session for the heads of laboratories at CIRAD (France). Staff were trained in vaccine quality assurance and vaccine production process. Staff were trained on new diagnosis technology for the targeted diseases. The supply of CBPP-cELISA kits to 13 countries should allow these countries to better assess CBPP prevalence and economic impact. Furthermore, improvement in quality control follow-up should be achieved through FAO's "Resolab" in West Africa. The validation of CCPP-cELISA and transfer of the technology to several countries will help support in the elucidation of the distribution of the disease besides helping in quality assurance in CCPP vaccine development.

6.2.3.2 Laboratory capacity building

6.2.3.2.1. Vaccine production laboratories

In order to further support disease control efforts on the continent and contribute to sustainability, AU-IBAR, through the VACNADA project working with GALVmed, carried out a needs assessment, and purchased and supplied essential equipment to upgrade eight selected vaccine producing laboratories (Accra Vaccine laboratory-Ghana, BVI-Botswana, LANVET-Cameroon, LCV-Kinshasa in the DR Congo, KEVEVAPI - Kenya, LCV-Bamako in Mali, NVI-Ethiopia and ISRA-LNERV-Dakar in Senegal) in addition to providing training in Vaccine Operation Management and supporting mechanisms to Quality Assurance (QA) implementation in the laboratories. Working with GALVmed, a study on strengthening vaccine distribution systems and a market survey on vaccine needs were carried out in Ethiopia (CBPP, CCPP, ND & PPR); Ghana (ND), Kenya (CBPP, CCPP, ND & PPR) and Southern Africa (CBPP & PPR). In addition, working in collaboration the VACNADA CIRAD, with project completed the development of experimental batches of new formulations of CBPP (T/144) vaccine for trials and developed a standardized cELISA for CCPP antibody detection and optimized CCPP vaccine production at NVI, Ethiopia. Working with AU-PANVAC, AU-IBAR procured reagents to support the upgrading of AU-PANVAC laboratory and also supported

the maintenance and calibration of equipment, as well as contributed to the procurement of BioSafety Level 3 (BSL3) laboratory equipment for AU-PANVAC. In addition the project provided technical assistance to improve quality assurance and vaccine quality control to several vaccine producing laboratories in Africa. In conclusion, through the project, the capacities of 8 vaccine producing laboratories have been enhanced in Kenya, Cameroon, Ghana, Ethiopia, Botswana, Mali, Senegal and DRC through the procurement and installation of BioSafety level 3 laboratory equipment and reagents.

6.2.3.2.2. National diagnosis laboratory capacity building

AU-IBAR, through the VACNADA project, assisted the national diagnostic laboratories of the beneficiary countries to undertake sero-monitoring and the mass vaccination campaign. To this effect, reagents, sampling and diagnostic materials, cold chain including cold box, fridge and freezers were supplied to all the 29 beneficiary countries in addition to financial and logistic support for effective surveillance and disease diagnosis. The staff were trained on new diagnostic technologies including cELISA and molecular biology techniques.

In addition, AU-BAR, in partnership with the FAO sub-regional office in Libreville, Gabon, hired a senior laboratory expert who trained selected veterinary and public health laboratory personnel of Sao Tome and Principe on molecular biology, equipment calibration and maintenance.

6.2.3.3. Veterinary services capacity building

Through LEISOM, AU-IBAR rehabilitated/ constructed 17 veterinary offices in Somalia that were destroyed during the civil-war.

In order to enhance animal disease surveillance, prevention and control, logistic support comprising 72 motorcycles, an assortment of vaccine carriers, freezers and refrigerators were also provided to VACNADA beneficiary countries.

6.3. Trade facilitation and harmonization

AU-IBAR, with the support of the EU, developed a 4-year project to improve livestock certification and facilitate livestock and livestock product trade in Somalia. The Somali Livestock Certification Project (SOLICEP) was designed in order to mitigate the recurrent livestock import bans imposed by the Middle East trading partners. The bans have been attributed to inadequate capacity of the veterinary authorities in Somalia to offer credible animal health certification. The total cost of the action was estimated at EUR 3,111,239 with the European Union (EU) contributing EUR 2,800,000 and the partners contributing EUR 311,239. SOLICEP's overall goal was to contribute to the reduction of poverty and the consolidation of peace through sustainable and equitable economic growth and regional integration. The purpose was to improve the export performance of the livestock sub-sector in Somalia and the Somali ecosystem (SES) though enhanced live animal health certification that promotes OIE/SPS standards.

During the project implementation period activities were carried out towards the achievement of three result areas. Towards the achievement of result area 1: 'an animal health certification model promoting OIE/SPS standards for live animals that is acceptable to both importing and exporting countries is defined and tested', the current live animal health certification practices in the different areas of Somalia and the requirements, including rules and regulations, by the major importing countries and those of potential new markets were documented and shared with trading partners. On the basis of the documentation, model health certificates containing diseases of concern and the applicable sanitary and other relevant information that needed to be certified were prepared and shared with stakeholders, including relevant authorities in Somalia and in the importing countries. The Royal Veterinary College, University of London, an academic institution which had been contracted to develop animal health certification models suitable for pastoral systems, recommended a certification system combining quarantine inspection and certification with a prequarantine/market inspection and certification. The proposed certification approach was shared and endorsed by the trading partners from importing and exporting countries from the Horn of Africa (HoA) and Middle East during the meeting 'Enhancing Safe Inter-Regional Livestock trade: Risk-based approaches to livestock certification and harmonization and control of trade –related transboundary animal diseases', held in Dubai, United Arab Emirates from 13th to 16th June 2011. The stakeholders emphasised the importance of a value chain certification that incorporates a peoplecentred approach along the livestock value chain. SOLICEP supported preliminary activities for the implementation of such a certification system in Somaliland, Puntland and Central South Somalia. However, it is recommended that the certification system be consolidated further by enhancing risk analysis for key traderelated diseases, documentation of all steps in the certification process and sharing this with trading partners, database development with traceability capability and increasing the use of laboratory diagnosis in the certification process.

Towards the attainment of result area 2: 'the capacity of the Somali public and private institutions to improve access to international livestock markets is enhanced', capacity building activities in Somalia (Somaliland, Puntland and Central South Somalia) were carried out and focused on needs identified through a self assessment performance of veterinary services (PVS) and during awareness workshops. The capacity building focused on public and private personnel and the strengthening of veterinary authorities. Capacity building was undertaken in the following areas: animal health inspection and certification based on the OIE Terrestrial Animal Health Code, procurement and financial management, livestock trade negotiations, collection, collation, analysis, report writing and dissemination of animal health data and information, risk analysis and sanitary and phytosanitary standards (SPS). SOLICEP also enhanced the capacity of veterinary authorities in the three regions of Somalia by providing them with tools, materials, equipment, and financial resources to support animal health certification activities. The veterinary authorities in Somaliland, Puntland and Central south Somalia were also supported to rehabilitate animal health inspection offices. In Somaliland, Puntland and Central South Somalia the trained animal health inspectors continued to carry out animal health certification activities. A total of 4,314,992, 502,979 and 1,819,454 heads of livestock were inspected and certified through the SOLICEP system in Somaliland, Central South Somalia and Puntland respectively.

Towards the attainment of result area 3: 'linkages among relevant Somali institutions and livestock trading partners are enhanced', some of the key activities that were carried out included stakeholder analysis that provided information on the roles, characteristics and organizational status of the actors along the livestock marketing chain. The study also made recommendations on the establishment of a strong multi-stakeholder consulting and advisory body, i.e. "The Livestock Council" that would become part of the organizational and decision making structure of the Ministry. SOLICEP developed a communication strategy and raised awareness among stakeholders on SOLICEP intervention and the contribution of the EU and AU-IBAR. Websites for Somaliland and Puntland were established and SOLICEP supported the establishment of the Somali Livestock Stakeholders Coordination and Advisory body (SOLISCAB), whose purpose is to enhance the coordination of livestock development activities, including animal health and certification, production and marketing in the 3 authorities of Somalia: Somaliland, Puntland and Central South Somalia. A mechanism to bring together trading partners from the Middle East and the Horn of Africa (HoA) was established. The mechanism is expected to continuously address emerging issues on livestock trade between the Middle East and the HoA.

Lessons learned in the implementation of SOLICEP:

 Complex projects in a fragile state like Somalia require a long inception period and clear risk management strategies. The projects should also have a longer implementation period of more than 3 years, to anticipate inherent risks.

- Participation of all the stakeholders in Somalia, including the Veterinary Departments in the SES, in the design of a certification project will avoid initial inertia towards early ownership and allow important agreements such as Memorandums of Understanding (MOUs) and contract agreements to be agreed upon without protracted delays.
- Direct funding and capacity building for the veterinary authorities enhanced the sense of ownership and the capacity left behind was used to support and run other projects and activities.
- Sustained structured dialogue between the HoA countries and Middle East is necessary to create trust and confidence and therefore stabilize livestock trade. This would complement the sanitary technical measures taken by exporting countries in line with prescription of the importing countries.
- A certification system that combines live animal inspection and certification at border points, primary and secondary markets (upstream/pre-quarantine inspection and certification) and quarantines inspection and certification (downstream), provides added value through the continuous control of trade limiting diseases. The combined system of certification provides higher standard of certification than either system alone
- Gradual implementation of the combined (pre-quarantine and quarantine inspection and certification) is necessary to ensure sustainability of the certification system. This would require long term commitment by the implementing partners and the donors.
- Stakeholders will buy in to interventions whenever the benefits are in line with their objectives. For example pre-quarantine (border and market) inspection and certification were appreciated by traders due to the perceived benefits of getting the animal health professionals close to the production centers. This has the benefit of assuring improved health and productivity of the livestock and hence increased offtake.

- The certification activities in Somaliland and Puntland generate a substantial amount of revenue that is not currently recouped to support and sustain the activities. For sustainability of the certification activities the stakeholders, especially the traders, are willing to make this payment into a revolving fund in support of the delivery of animal health services, including certification.
- Veterinary authorities have low human capacity to carry out the certification activities and would benefit from direct technical support from the Ministries.
- Physical presence of implementing partners in Somalia has a positive impact on project implementation. Future interventions by AU-IBAR should consider establishing local offices in Somalia to avoid the 'geographical decay'.
- Capacity building to create a critical mass of skilled personnel knowledgeable in inspection and certification represents a major sustainable strategy.
- Annual plans for the veterinary authorities were informed by stakeholders' reflections and were constantly revised. The intention was to take stock of the roll-out in the previous period and plough the lessons learnt back into the implementation plan. This is a good implementation practice.

The project was successfully concluded in 2011 and AU-IBAR will extend this exercise to the IGAD region and promote livestock certification in the other regions.

6.4. Tsetse and Trypanosomosis research and control

AU-IBAR hosts the Secretariat for the International Scientific Council for Trypanosomiasis Research and Control (ISCTRC). To facilitate information sharing and exchange in Tsetse and Trypanosomiasis, the ISCTRC holds biennial scientific conferences and also contributes to the publication of PAAT Technical and Scientific Series within the framework of PAAT. During 2011 the 36th ISCTRC Executive Committee meeting was held in Bamako, Mali on 11th September 2011. During the reporting period the 31st ISCTRC General conference with the theme

'Refocusing Research and Control of tsetse and trypanosomiasis: a development agenda' was held in Bamako Mali from 12th to 16th September 2011. The conference brought together 300 participants from African Union Member states, Non Governmental Organizations, the pharmaceutical industry and international organizations. The participants deliberated on T&T research and control, shared and exchanged scientific information, reported on progress made towards the control of tsetse and trypanosomiasis during the period 2009 to 2011 and made recommendations to guide T&T research and control for the next two years. During the conference over 100 scientific and technical presentations were made. In 2011 the ISCTRC Secretariat also participated in coordination meetings with partners, PAAT and PATTEC.

6.5. Contribution to the terrestrial and aquatic animal health standards code commission

In 2009 AU-IBAR launched a project to enhance the participation of OIE Delegates from Africa in the OIE standard-setting process through Participation of African nations in Sanitary and Phytosanitary Settings (PANSPSO) project, funded by the EU.The main reasons for initiating this common position process were:

- The low participation of African Delegates in OIE standard setting activities, as reflected in the low number of written and verbal comments submitted to the OIE on drafted or amended standards;
- The lack of a coordinated or common position among African nations to propose draft standards, to submit written comments on proposed drafts, or to makes suggestions for standards revision;
- The lack of opportunity, during meetings of the OIE Regional Commission for Africa, to debate standards or establish a common approach and understanding;
- The strong need expressed by African OIE delegates to convene and discuss in detail, prior to the OIE General Sessions of the World Assembly of Delegates, new or amended standards, and to harmonize their opinions to enable them present a common view during the General Session.

To this effect, AU-IBAR initiated a yearly CVOs meeting to actively participate in all new or amended standards being proposed by the OIE Terrestrial and Aquatic Animal Health Standards Commissions (the Code Commissions). Where applicable, and especially when these proposed standards could affect trade in animals and animal products and animal health in Africa, delegates proposed comments to be presented as verbal interventions during the OIE General Session every year.

The success of this intensive discussion meeting with the delegates, enhancing their ability to interact and debate with informed confidence, has significantly improved the participation of African nations in the OIE standard-setting process.

The submission of written comments by the OIE Delegates has also improved since 2011, with the facilitation of the Technical Group of CVOs and Animal health experts which meets twice per year prior to the September and February meetings of the OIE Code Commissions.

The figure below shows the evolution of the number of the participation of African delegates to the OIE General Assembly.

6.6. Information and knowledge management

6.6.1. Knowledge management

The year 2011 was particularly unique and a land mark year for AU-IBAR's Knowledge Management Programme. In working towards attaining the strategic objectives of AU-IBAR (2010-2014 Strategic Plan) and the AUC (2009-2012), efforts were made to integrate knowledge management (KM) into core AU-IBAR functions and activities to support planning and decision making and thus improve efficiency and effectiveness. To help attain AU-IBAR's vision of an Africa in which livestock, fisheries and wildlife contribute significantly to the reduction of poverty and hunger, the Programme worked with different sections of the institution and projects to develop tools to support the sharing of information and knowledge, and to provide support in the development of a KM culture. The Programme provided a focal point for capturing, documenting, storing and sharing tacit, implicit and explicit knowledge in a holistic manner by providing a common and standardized approach to managing knowledge across the 6 programmes.



Figure 22: Trend of African country's OIE Delegates Participation to the General Assembly
The core activities undertaken in collaboration with different sections of the institution during the year 2011 include:

- The strengthening of the Programme through the recruitment of a Knowledge Management Programme Officer.
- An assessment of the KM health of AU-IBAR, which provided the basis for improving KM practices and the capacity for learning.
- A KM audit which highlighted the information and knowledge needs of the institutions, available knowledge assets and existing gaps. The audit also provided insight into the flows of information and knowledge and how sharing could be improved through appropriate KM practices, tools and techniques.
- The work undertaken during 2011 saw the development of a Draft AU-IBAR KM Strategy.
- The establishment of communities of practice through the development of a D-Groups system for sharing information and knowledge (tacit and explicit) and to facilitate team learning.
- The development of an intranet to provide a knowledge and information exchange platform.
- The development of a calendar of events to facilitate planning and scheduling of events.
- To ddisseminate new knowledge and information through repackaging of project outputs by working with project coordinators to publish project experiences, lessons learnt and best practices targeted at technical officers, policy makers, development workers and grassroots communities.
- The development of a contacts and mailing list database.
- The processing of in-house publications to be incorporated in the planned e-repository of AU-IBAR publications.
- The development of a photographic data base by processing AU-IBAR's photographic collection to facilitate online access of photographic materials.

In addition, training was conducted for moderators and co-moderators of D-Groups based at AU-IBAR in Nairobi, Kenya. In total six people were trained (two women and four men).

A server was also procured to facilitate the development of the AU-IBAR intranet which facilitates and strengthens the internal communication and information sharing.

6.6.2. Animal Resource Information System (ARIS-2)

The overall objective of the Animal Resources Information System (ARIS-2) is to enhance the information and knowledge management capacity of AU-IBAR, MS & RECs to prevent and swiftly respond to disease emergencies and to properly plan interventions in animal production, marketing and trade as well as to attract investment in the sub-sector. The use of accurate animal health data and information has gradually evolved to become an essential tool for planning, policy formulation and legislation, promotion of trade, and for advocacy to attract and promote investment and resource allocation to the livestock sub-sector for development purposes. Accurate and reliable data is also essential for research and training purposes.

In 2011 AU-IBAR has developed the 2nd version of the Animal Resource Information System (ARIS-2) with improved features. The system is customizable to country and user needs and has an expandable modular design covering key areas of animal health, animal production, trade and marketing and capacity. A total of 10 core modules (for system management and administration) and 8 transactional modules have so far been developed. ARIS-2 is also interoperable with other information systems being used by Member States on the continent. The development process was completed within the year and tested in 2 countries. When fully functional and rolled out, ARIS-2 will allow Member States to collect, collate, submit, validate and analyze data on animal resources online and offline.ARIS-2 will also facilitate and improve collaboration between Member States and the Regional Economic Communities as well as improve the participation of African countries in international standard setting and collaboration.

The official launch, roll out and operationalization will commence in 2012.

6.7. Integrated Regional Coordination Mechanism for TADs and Zoonoses (IRCM)

To help mitigate the heavy disease burden, the African Union through AU-IBAR and human health (Directorate for Social Affairs (DSA) spearheaded development of the Integrated Regional Coordination Mechanism (IRCM) for the prevention and control of TADs and zoonoses in Africa, in collaboration with global technical partners, namely the Food and Agriculture Organization of the United Nations (FAO), World Organisation for Animal Health (OIE) and the World Health Organization Regional Office for Africa (WHO-AFRO). The IRCM initiative is designed as a business process model for the prioritization and mainstreaming of interventions against TADs and zoonoses within the institutional structures and decision making processes of the RECs and their MSs. The initiative seeks to improve coordination among stakeholders involved in the management of TADs and zoonoses and the establishment of critical competences in the departments responsible for their prevention and control at the national level. It also has a strong regional thrust to ensure support for intercountry coordination and support to regional integration. Strengthening of capacities for preparedness, prevention and control of TADs and zoonoses at the local, national, regional and continental levels is given prominence as a public good and inalienable ingredient for sustainable development and poverty alleviation in Africa. The IRCM is aligned to the Africa Health Strategy, the AU-IBAR strategic plan, CAADP framework, NEPAD agency framework and the Global One Health strategic framework and brings on board specialized international organizations namely FAO, OIE and WHO. The IRCM has also built on lessons learned from HPAI programs in Africa and globally, as well as other programs implemented by AU-IBAR and others in Africa. The strategy of IRCM is to build on existing structures and systems, while investing where gaps exist to strengthen, streamline or even establish improved ones building on practices, experiences and lessons learned at national, regional and continental levels. The IRCM will thus function as a mediumterm strategic framework for capacity building to assist RECs to converge towards a common platform with coordinated approaches and procedures for the prevention and control TADs and Zoonoses. In line with the current global dispensation, interventions will seek to promote the One Health approach at the national, regional, inter-regional and continental levels. Priorities in this regard focus on leveraging inter-sectoral collaboration among the health domains, fostering evidence based decision making processes, enhancing capacity building, strengthening institutions and entrenching the systems approach in addressing TADs and zoonoses challenges.

6.7.1. Operationalization of IRCM trough the Regional Economic Communities (RECs)

Significant achievements have been realized during the reporting period. Operationalization of the IRCM started in 2011 with limited resources from internal (AUC) sources. The initial step was a discussion of the strategic framework with technical partners and agreement on a common roadmap. This was followed by implementation planning sessions with the RECs to support them to develop implementation plans focusing on specific regional priorities. Over the reporting period 4 RECs namely SADC, EAC, ECCAS and IGAD have developed implementation plans. However, only the SADC implementation plan has been presented and endorsed by stakeholders and is therefore ready for resource mobilization and implementation. Additionally, material and technical support has been extended to the SADC technical coordination committees (EIS and Lab and diagnostics to conduct their routine functions) and discuss actions to broaden their outreach to make them more integrated and multi-sectoral. Similar support is earmarked for the other SADC sub-committees with the objective of having them function fully in line with the IRCM objectives in order to use them as a model for other RECs.

6.7.2. One Health Initiatives

Lesson learnt from SPINAP implementation and HPAI prevention and control in Africa, AU-IBAR is embarked One Health Initiatives. To this effect, several activities were undertaken in the promotion of the One Health agenda through sensitization of professionals from the 3 health domains from 20 AU Member States. Two training sessions on disease investigation in wildlife, livestock and public health were held in Akagera National Park, Rwanda and Mole National Park in Ghana. The training was organized and conducted by AU-IBAR under the IRCM strategic framework in collaboration with the USAID RESPOND project of the Emerging Pandemic Threats (EPT) Program. A total of 57 professionals, drawn from medical and public health departments, livestock health and wildlife services, were trained. Other professionals involved in the training included nurses, microbiologists, livestock production and food safety specialists.

The overall objective of the intervention was to train and mentor One Health champions representing the 3 health domains (wildlife/ environment health, livestock health and public health) at Member State and REC secretariat levels as part of advocacy of the integrated approach to the management of TADs and zoonoses. Training was based on the adult learning approach that enables participants to have direct experiences, reflect on their previous experiences, conceptualize, and apply new knowledge and skills to their specific contexts. The training method combined lectures, problem based learning and field exercises. Every lecture was followed by a discussion session facilitating the clarification of issues and sharing of experiences. Problem based learning exercises were conducted to enable participants to better understand the links between the determinants of health, ecological influences and the epidemiological patterns of disease, hence, the necessity for collaboration among different sectors to address them.

Lessons learned from the One Health initiatives in some of the participating countries Ghana, Ethiopia, Sierra Leone and South Africa were presented to participants by representatives from the respective countries. Considered as One Health champions, the trainees identified actions that they would implement in their respective countries in the short, medium and long term to promote One Health through a short action planning exercise towards the end of the course. The participants also undertook to join a continental One Health network currently being established by AU-IBAR and partners.

Under the leadership of AU-IBAR, the One Health network aims to link and empower members to promote the One Health Approach, share experiences, share information and exchange technical knowledge on the management of infectious diseases. Through additional planned training sessions, the One Health network is expected to grow to cover the whole continent. Some of the countries (Ethiopia, Kenya and Uganda) involved in the One Health network are also members of the One Health for Central and Eastern Africa network (OHCEA) that brings together Deans of Faculties responsible for Human and Veterinary Medicine from 6 universities in Eastern and Central Africa.

There are also ongoing effort to establish coordination mechanisms in IGAD and ECCAS. Operationalization of the IRCM has been slow due to limited financial resources and weak capacity at the REC secretariats to drive planned actions. Effective operationalization of the IRCM is estimated to require a substantial outlay of financial resources. Initial estimates indicate a budget of \$100,000,000.00 (One Hundred Million USD) to be utilized over a period of 8 years. The implementation is foreseen to take place through 2 phases. An initial 5-year operationalization period is needed to support the establishment of coordination mechanisms in all RECs and strengthen existing ones. This will be followed by a final phase (2nd) of 3 years during which institutions involved in the operationalization will consolidate systems and operations supported and mainstream them into their routine functions at all levels. By the end of the 8year period, Africa could be having a continental mechanism comparable to DG SANCO and the ECDC (African Centers

for Disease Prevention and Control) for the management of infectious diseases and sanitary threats on a continental scale. About 80% of the IRCM budget is expected to be used to support capacity building in the REC secretariats and MSs technical departments responsible for TADs and zoonoses. The balance of 20% of the budget will support inter-REC and central level structures and mechanisms, and support program execution. The concerted support of all partners is required to mobilize resources to achieve this worthwhile feat.

In conclusion, the IRCM provides a specific approach relevant for the African context that requires support and adoption to ameliorate the impacts of interventions against TADs and zoonoses. It offers a pragmatic approach for the roll-back of the heavy burden of TADs and zoonoses on the continent by strengthening both technical capacities at national level and coordination capabilities at sub-regional and continental levels.

7.1. Improving veterinary governance in Africa

AU-IBAR is embarking on further supporting the improvement of veterinary governance in 2012 through the official launch of the EU funded project "Re-inforcing Veterinary Governance in Africa", otherwise known as the VET-GOV project. The project, which covers all the AUC MS, will mainly focus during 2012 on the following:

- Baseline data collection and analysis for evidence based advocacy and policy
- Pilot activities aimed at enhancing awareness for increased investment in livestock
- Regional awareness and advocacy consultative workshops with state and non state actors
- Supporting the Alive platform, the IRCM, the development of Africa common position on animal health standards, the knowledge management portal and the Animal Resources Information System(ARIS-2)
- Developing, adapting and testing policy tools and guidelines
- Benchmarking visits to IGAD to support the establishment of policy hubs
- Technical backstopping for policy, strategies and legislative processes.

7.2. Coordinated and Harmonized Standards, Methods and Procedures on Animal Health (SMP-AH)

To address the challenge posed by traderelated Transboundary Animal Diseases (TADs) in the IGAD Region, AU-IBAR, in partnership with IGAD and with financial support from USAID, has developed a regional project, the Standard Methods and Procedures in Animal Health (SMP-AH). The intention of the project is to standardize procedures for detection of and response to specified trade-significant TADs with the aim of promoting intra and inter-regional trade in livestock and livestock products. During 2012 the following activities have been planned: hold inception and project launching workshop, finalise the project document, undertake disease prioritization, hold training of ARIS administrators and users, hold a meeting of the epidemio-surveillance network, undertake stocktaking of animal disease surveillance, control and laboratory systems, undertake promotional, visibility and communication SMP-AH activities, enhance the capacity of the IGAD Centre for Pastoral Areas and Livestock Development (ICPALD), initiate the feasibility study on suitable animal identification and traceability systems for pastoral areas, organize a regional meeting for national trade associations including other stakeholders.

7.3. Tsetse and trypanosomiasis research and control

AU-IBAR hosts the Secretariat of the for International Scientific Council Trypanosomiasis Research and Control (ISCTRC). During 2012, AU-IBAR will convene the 37th ISCTRC Executive Committee (EXCO) meeting to provide an opportunity for stakeholders to discuss harmonisation and coordination of the tsetse and trypanosomiasis interventions. Further the meeting will plan for the 32nd ISCTRC General Conference that will be held in September 2013. The Secretariat will participate in coordination and harmonisation meetings organized by partners including AU-PATTEC, PAAT and ICIPE. AU-IBAR will also support the publication of the PAAT Technical and Scientific Series, a joint publication by FAO, AU-IBAR, IAEA and WHO that aims to promote the sharing of knowledge and harmonisation of T&T interventions among the wide range of actors concerned with the T&T problem. The recommendations for the 31 st ISCTRC General Conference will be compiled and disseminated to Member States, RECs, technical partners and other stakeholders. The manuscripts for the 31st ISCTRC General Conference will also be compiled for publication of the 126th Volume of the ISCTRC Proceedings.

7.4. Animal resources information system and knowledge management

During the year 2012,AU-IBAR will concentrate mainly on the roll out of the Animal Resources Information system (ARIS-2). This process will involve training of various stakeholders including head users at AU-IBAR headquarters, regional and national system administrators as well as regular data submitters at the national level. It is expected that between 20-25 countries and 3 RECs will be covered within this first year of operationalizing the system.

Further enhancement of the system features and creation of new modules, as well as improving collaboration with technical partners such as OIE, FAO and the RECs to ensure interoperability between ARIS-2 and other information systems will be also be done.

In the area of knowledge management, AU-IBAR planned to implement the following activities during the year 2012:

- Development of an Animal Resources portal within the AU-IBAR website;
- Implementation of at least 5 D-Group discussion forums on selected animal resource topics;
- Production of various monographic series of lessons learnt and best practices, and preparation of policy briefs;
- Development of a compendium of TADs and Zoonosis;
- Development of a livestock investment portfolio;
- Creation of a directory of animal resources experts in Africa;
- Launching of the AU-IBAR Intranet;
- Modernization of the AU-IBAR library through digitization and creation of e-repository and digital archives of various publications, creation of a photographic database and establishing linkages with the AUC and other related libraries;

7.5. One Health Initiative

The AU-IBAR promotes the One Health approach which is foreseen to enhance cooperation and synergy among different sectors, ministries, departments and disciplines with regard

One Health activities planned by AU IBAR in 2012 comprise training and mentorship of One Health champions, regional workshops on One Health and review of the OH training curriculum. The training and mentorship programs target experienced field professionals from national departments responsible for veterinary services, public health and wildlife and environment. The workshops will bring together regional actors involved in One health to discuss and build consensus on how to take forward the One health agenda in Africa.

CONCLUSION

The number of reporting countries has decreased this year from 49 in 2010 to 42 MS. Similar, the reporting rate has also decreased from 92.45% to 88.47%. Continuous advocacy, awareness and actions should be made to improve the submission of animal disease reports to AU-IBAR by all member countries in order to give a complete picture of the animal health status of the continent. The rolling out of ARIS-2 in 2012 will allow MS to timely submit reports and improve both the quantity and the quality of the disease reports.

A total of 91 different animal diseases were recorded with 24,201 outbreaks causing 2,025,190 cases, 651,275 mortalities, 225,789 slaughtered animals and 262,339 destroyed animals. The widely distributed diseases across the continent included Rabies, ND, LSD, PPR, FMD, blackleg, ASF, trypanosomosis, brucellosis and anthrax whereas the most common reported diseases by number of outbreaks are Theileriosis, trypanosomosis, rabies, LSD, PPR, TB, brucellosis, ND and pasteurellosis. The major TADs affecting African countries remained the same compared to the others years. ASF, PPR, FMD, LSD and CBPP are still wide spreading with serious economic impact to African livestock. Two vector-borne diseases namely Theileriosis and trypanosomosis recorded the highest number of outbreaks this year, contributing to 8.02% and 6.78% respectively.

The major zoonosis reported this year with a large number of affected countries and outbreaks are still rabies, TB, brucellosis, anthrax and trypanosomosis.

In 2011,AU-BAR successfully concluded 3 major projects which addressed disease control in MS, vaccine production laboratories, livestock certification as well as capacity building in different MS. New programs/projects will start earlier to address veterinary governance in the continent as well as coordination and harmonization of the animal health standards, methods and procedures in line with OIE regulations.



ANNEX I: STATUS OF MONTHLY DISEASE REPORTING BY COUNTRIES IN 2011

	Country	MONTHS - 2011											
		J	F	Μ	Α	Μ	J	J	Α	S	0	Ν	D
١.	Algeria												
2.	Angola												
3.	Benin												
4.	Botswana												
5.	Burkina Faso												
6.	Burundi												
7.	Cameroon												
8.	Cape Verde												
9.	CAR												
10.	Chad												
11.	Comoros												
12.	Congo Brazzaville												
13.	Cote d'Ivoire												
14.	Djibouti												
15.	DR Congo												
16.	Egypt												
17.	Equatorial Guinea												
18.	Eritrea												
19.	Ethiopia												
20.	Gabon												
21.	Gambia												
22.	Ghana												
23.	Guinea Conakry												
24.	Guinea Bissau												
25.	Kenya												
26.	Lesotho												
27.	Liberia												
28.	Libya												
29.	Madagascar												
30.	Malawi												
31.	Mali												
32.	Mauritania												
33.	Mauritius												
34.	Mozambique												
35.	Namibia												
36.	Niger												
37.	Nigeria												
38.	Rwanda												
39.	Sao Tome & Principe												
40.	Senegal												
41.	Seychelles												
42.	Sierra Leone												
	Full Reports		Zer	o Rep	oorts	s [N	o Re	eport	:s	

% REPORTING							
2011	2010	2009					
100%	100%	100%					
0%	100%	100%					
100%	100%	100%					
100%	100%	100%					
100%	100%	100%					
0%	100%	100%					
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100%	100%	100%					
100%	100%	100%					
100%	100%	100%					
100%	75%	0%					
0%	0%	0%					
100%	41.67%	50%					
100%	100%	100%					
100%	100%	100%					
100%	100%	100%					
0%	100%	100%					
83%	100%	100%					
100%	100%	100%					
100%	100%	100%					
100%	100%	100%					
100%	100%	0%					
0%	0%	100%					
100%	100%	100%					
58%	100%	100%					
66%	100%	100%					

	Country				M	ON	ТН	S -	20	I			
		J	F	Μ	Α	Μ	J	J	Α	S	0	Ν	D
43.	Somalia												
44.	South Africa												
45.	Sudan												
46.	Swaziland												
47.	Tanzania												
48.	Тодо												
49.	Tunisia												
50.	Uganda												
51.	Zambia												
52.	Zimbabwe												
	Full Reports		Zer	o Rej	oorts	s [N	o Re	eport	s	

% REPORTING								
2011	2010	2009						
100%	100%	100%						
100%	100%	100%						
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100%	100%	100%						
84.78%	94.23%	88.46%						

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ANNEX 2: LIST OF DISEASES REPORTED IN AU-IBAR MEMBER STATES IN 2011 AND RELATED QUANTITATIVE DATA ARRANGED IN ORDER OF NUMBER OF OUTBREAKS

	Disease	Number of	Total	Total	Total	Total	Total
		Countries	Number of	Deaths	Number	Number	Number
<u> </u>	A atin a muca a ia	affected	Outbreaks		Slaughtered	Slaughtered	Destroyed
		1	10	2754			0
2	African Horse Sickness	0	471	1/1050		3	0
3	African Swine Fever	22	4/1	144950	149116	14433	1372
4	Agaiactia		4	6	0		
5	American foulbrood of honey bees		2	8	0	0	8
6	Anaplasmosis	14	983	22323	872	4	9
7	Anthrax	21	629	5655	1735	437	71
8	Avian Infectious Bronchitis	21	4	18	5	NS	NS
9	Avian Leucosis	1	1	9	5	0	0
10	Avian mycoplasmosis	1	1	45	45	NS	NS
11	Babesiosis	15	1012	37525	271	8	0
12	Blackleg	23	969	9633	1826	120	99
13	Bluetongue	5	169	970	239	0	0
14	Botulism	5	58	2829	906	0	0
15	Bovine Ephemeral Fever	1	33	164	I	NS	NS
16	Bovine Genital Campylobacteriosis	1	8	18	0	0	0
17	Bovine Malignant Catarrhal	1	4			NS	NS
18	Brucellosis	18	1066	136987	709	1302	48
19	Camelpox	2	43	1101	57	15	12
20	Canine Distemper	7	44	297	102	0	0
21	Caseous Lymphadenitis	1	18	83	0	0	0
22	Chlamydiosis	1	1	6	0	0	
23	Chronic Respiratory Disease	1	1	30	10	NS	NS
24	Classical Swine Fever	2	7	22	22		2
25	Coccidiosis	10	175	7087	1537	0	880
26	Colibacilosis	3	12	1193	98	0	0
27	Contagious Agalactia	1	4	3	0	NS	NS
28	Contagious Bovine Pleuropneumonia	19	307	16969	3037	2198	65
29	Contagious Caprine Pleuropneumonia	7	284	5833	1342	135	92
30	Contagious Ecthyma	8	392	2166	68	45	0
31	Contagious Ophthalmia	2	134	392	38	0	0
32	Contagious Pustular Dermatitis	3	51	591	18	0	0
33	Cysticercosis	3	21	84	41	171	133
34	Dermatophilosis	12	547	4924	241	1255	1
35	Distomatosis (Liver fluke)	7	102	1804	119	157	11

	Disease	Number of Countries affected	Total Number of Outbreaks	Total Deaths	Total Number Slaughtered	Total Number Slaughtered	Total Number Destroyed
36	Echinococcosis/hydatidosis	4	47	2443	161	2617	0
37	Encephalomyelitis	1	3	22	16	NS	NS
38	Enterotoxaemia	4	27	67	55	0	0
39	Enzootic Abortion of Ewes	2	2	60	2	0	0
40	Erysipelas	3	12	111	17	8	0
41	Foot and Mouth Disease	28	902	86185	2804	768	509
42	Footrot	6	76	569	26	0	0
43	Fowl Cholera	5	33	1997	1102	0	205
44	Fowl Pox	14	279	117465	6616	288	109
45	Fowl Typhoid	5	52	23836	1546	495	846
46	Haemorrhagic Septicaemia	3	6	224	133	31	0
47	Heartwater	14	810	9546	977	35	6
48	Highly Pathogenic Avian Influenza	l	306	218797	31851	60735	126395
49	Infectious Bronchitis	2	2	104	19	0	
50	Infectious Bursal Disease	12	174	53235	15021	432	1326
51	Infectious coryza	4	124	2434	609	0	0
52	Infectious Laryngotrachea- tis	I	I	1000	700	300	
53	Leishmaniosis	1	34	34	0	0	34
54	Leptospirosis	1	3	4	0	0	0
55	Lumpy Skin Disease	29	1370	36012	1415	217	7
56	Malignant catarrhal fever	3	23	40	18	3	
57	Mange	10	900	25549	202	250	0
58	Mareks disease	3	4	722	715	0	5
59	Mucosal disease/BVD	2	3	28	0	0	
60	Nairobi Sheep Disease		8	47	11	0	3
61	Newcastle Disease	33	1056	492348	329550	55021	13843
62	Non specific respiratory disease	7	30	682	126	47	9
63	Notifiable Avian Influenza		44	NS	NS	NS	NS
64	Old World Screwworm	1	43	96	11	NS	NS
65	Parafilariosis	I	I	2	0	NS	NS
66	Paratuberculosis (Johne's disease)	3	5	7	5	0	0
67	Parvovirosis			I	0	0	0
68	Pasteurellosis	13	1016	14014	3284	514	19
69	Peste des Petits Ruminants	28	1188	101036	62400	19947	1450
70	Piroplasmosis	4	47	223	73	0	0
71	Porcine Cysticercosis	4	104	199	16	49	34
72	Porcine reproductive and respiratory syndrome	2	2	I	0	NS	I
73	Psittacosis		2	NS	NS	NS	NS
74	Pullorum disease	4	5	304	141	0	30
75	Q Fever	1	I	2	0	0	
76	Rabies	34	1608	2779	1524	211	1416
77	Rift valley fever	4	80	55	27	0	0

	Disease	Number of Countries affected	Total Number of Outbreaks	Total Deaths	Total Number Slaughtered	Total Number Slaughtered	Total Number Destroyed
78	Salmonellosis	7	59	177203	16188	57742	111972
79	Scabies	5	165	3044	23	0	0
80	Schistosomosis	1	I	6000	0	0	
81	Sheep and Goat Pox	13	544	10070	1621	158	67
82	Sheep Scab	1	6	32	4	NS	NS
83	Staphylococcus Infection	1	28	0	0	10	0
84	Strangles	2	4	23	3	0	
85	Tetanus	1	1	I		NS	NS
86	Theileriosis	10	1942	28427	2133	0	5
87	Toxoplasmosis	1	I	I	0	0	0
88	Trichomonosis	1	13	34	0	0	0
89	Trypanosomosis	21	1629	195923	6472	2264	453
90	Tuberculosis	21	1123	4950	184	3364	60
91	Varroose of honey bees	2	57	712	0	0	712
92	Grand Total		24201	2025190	651275	225789	262339

ANNEX 3: COMMON POSITION OF AFRICA DELEGATES PRESENTED DURING THE 78TH GENERAL ASSEMBLY OF OIE IN MAY 2011

CHAPTER CHANGE FOR ADOPTION POSITION Technical Item I - Monday 23 May: 11.00 am The contribution of veterinary activities to global food security for food derived from terrestrial animals Africa wishes to thank the OIE for including this item as a Technical Theme for this General Session. Food security for food derived from terrestrial animals is a priority issue in all	NDARD	PROPOSED	AFRICA	SPEAKER	SUPPORT
Technical Item I - Monday 23 May: 11.00 am The contribution of veterinary activities to global food security for food derived from terrestrial animals Africa wishes to thank the OIE for including this item as a Technical Theme for this General Session. Food security for food derived from terrestrial animals is a priority issue in all		ADOPTION	POSITION		
The contribution of veterinary activities to global food security for food derived from terrestrial animals Africa wishes to thank the OIE for including this item as a Technical Theme for this General Session. Food security for food derived from terrestrial animals is a priority issue in all	I	Technical Item I - Monda	y 23 May: 11.00 am	<u></u> ו	
activities to global food security for food derived from terrestrial animals a Technical Theme for this General Session. Food security for food derived from terrestrial animals is a priority issue in all	ntribution of ve	Afı	rica wishes to		
food derived from terrestrial animals a Technical Theme for this General Session. Food security for food derived from terrestrial animals is a priority issue in all	es to global foo	or that	ank the OIE for		
a Technical Theme for this General Session. Food security for food derived from terrestrial animals is a priority issue in all	erived from ter	nals inc	luding this item as		
this General Session. Food security for food derived from terrestrial animals is a priority issue in all		a T	echnical Theme for		
Food security for food derived from terrestrial animals is a priority issue in all		thi	s General Session.		
food derived from terrestrial animals is a priority issue in all		Fo	od security for		
a priority issue in all		foc	od derived from		
a priority issue in all		ter	restrial animals is		
			briority issue in all		
forming in Africa		spi	meres of livestock		
Members are aware of			mbers are aware of		
the constraints facing		the	e constraints facing		
Africa to ensure a		Afi	rica to ensure a		
continuous supply of		со	ntinuous supply of		
food not only for local		foc	od not only for local		
consumption but also		col	nsumption but also		
international trade.		int	ernational trade.		
The request is that		Th	e request is that		
standards set by the		sta	indards set by the		
OIE to facilitate trade			E to facilitate trade		
should always keep		sho	ould always keep		
In mind that they be			mind that they be		
			sy implementation		
by countries in Africa		by	countries in Africa		
without unnecessary		wit	thout unnecessary		
non-tariff barriers to		no	n-tariff barriers to		
trade and respecting		tra	ide and respecting		
the principle of		the	e principle of		
equivalence.		equ	uivalence.		
Technical item 2 - Tuesday 24 May: 11.00 – 11.45		echnical item 2 - Tuesday 2	24 May: 11.00 – 11.	45	
Implementation of a global strategy Africa welcomes the Sudan Lesotho	entation of a g	gy Afı	rica welcomes the	Sudan	Lesotho
for FMD control clarity provided by	D control	cla	rity provided by		
the speaker on this (Sudan to be		the	e speaker on this	(Sudan to be	
important subject also at the ad		im	portant subject	also at the ad	
and supports the hoc Group for		and	a supports the	noc Group for	
giodal strategy. It is Kesolution)		glo	oual strategy. It is	resolution)	
he many role players			many role players		
driving this issue		dri	iving this issue		
Africa expresses the		Afr	rica expresses the		
need for clarifying		ne	ed for clarifying		
the respective roles		the	e respective roles		
and responsibilities		and	d responsibilities		
of different partners		of	different partners		
in this global		in 1	this global		
program. The unique		pro	ogram. The unique		
Circumstances to			cumstances to		
should be considered			ould be considered		
taking into account		tak	king into account		

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
			that in most regions in Africa due to the livestock/wildlife interface, eradication of the disease will be difficult. The request however is that this should not be held as trade barrier against African countries to enter the international market for trade in animals and animal products.		
	Aquatic Co	de Commission –	Tuesday 24 MAY; 11.4	45 -1.15	
	Glossary	Introduction of "living organisms" in definition of feed	Africa supports this change brought to the definition of animal feed for aquaculture	Cameroon	Somalia
Criteria for listing aquatic animal diseases	Chapter 1.2 Article 1.2.1 A. consequences Criteria number 2	Modification of Criteria No2 for listing of a disease	Africa supports the deletion of the part proposed but seeks clarification on the exact meaning of "negatively affect"	Nigeria	Tunisia
Principles for responsible and prudent use of antimicrobial agents in veterinary medicine	new Chapter 6.3 Article 6.3.3.: Definitions	definition of harmacovigilance of antimicrobial agent	In the definition of pharmacovigilance of antimicrobial agent, we suggest to add the word "aquatic" before "animals" Other changes in the chapter are supported as they clarify the roles of key actors in the use of antimicrobial agents	Tunisia	Malawi
Quality of aquatic animal health services	Chapter 3.1.	Whole chapter	Africa commends the application of the OIE PVS tool to aquatic animal health services	Mauritania	Benin
Welfare aspects of stunning and killing of farmed fish for human consumption	Chapter 7.3. Article 7.3.5. : Unloading, transferring and loading	Duration of fasting before killing of fish	In order to make the sentence more clear we propose to remove the brackets in the last part of the sentence (e.g. to clear the gut or to reduce undesirable organoleptic properties).	Cote d'Ivoire	Namibia

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
	Report of t	he Scientific Com Tuesday 24 I	mission for Animal D May 2h45pm	iseases	
		Extension of official recognition of diseases	The Delegates of Africa take note with appreciation of the work already done by the Commission to extend the list of diseases to be officially recognised for country and zonal freedom (Classical Swine Fever and African Horse Sickness).	Nigeria	Swaziland
		Wildlife/lives- tock interface	An important issue that need the attention of both the Scientific and Code Commissions is to define a clear strategy on the role played by wildlife in the transmission of OIE listed diseases and the need to have a clear policy as it relates to country or zonal freedom. Different rules apply for example for FMD relative to other diseases such as ASF, CSF, HPAI and Aujesky's disease.	Kenya	Swaziland
Terrestrial Code C	Glossary	esday 25 MAY; 09H0 Definition for euthanasia Definition of wild animal + captive wild animal +feral	0 – 16H00 The Africa delegates take note with appreciation that their intervention on this definition during the 78th General Session was included in the new definition. Africa supports the proposed new definitions related to wildlife. However, Africa does not support the deletion of the definition of wildlife as it is commonly used. For instance, in the Code (in Chapter	Mali	Togo

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
			5.10 - certification) the word wildlife is still used (e.g. wildlife management) despite the deletion of the definition, which is not consistent.		
Listing of diseases	Chapter 1.2. Article 1.2.3 Diseases for de- listing		Africa supports the changes proposed but requests that the OIE continue to review the OIE listed diseases and specifically the need for retaining Swine Vesicular Disease in the list, and to verify if it complies or does not comply with the criteria for listing. The Code Commission is requested to check the French version for duplication of diseases at article 1.3.2 e.g.	Cote d'Ivoire	Gabon
Evaluation of veterinary services	Chapter 3.2 Article 3.2.14- 2a(vi)	Veterinary education	Africa considers that more clarity is needed if the day- I competencies take into account competencies in aquatic animal health and welfare, and to clarify if a linkage can or will be made with the competency for veterinary training in the PVS manual In the French translation 3.14-2a (vi) we propose to write "enseignement vétérinaire" instead of "enseignement de la médecine vétérinaire"	Cameroon	Chad
Zoning and com- partmentalisation	Chapter 4.3. Article 4.3.2.	Changes proposed in second paragraph of Article 4.3.2: General considerations	In the English version, the language is unclear. The word "and" in the following sentence appears to be redundant:	Algeria	Niger

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
			"wildlife species and environmental factors, and on the application of biosecurity measures ». This remark does not apply to the French version.We propose to align the English version with the French version and to replace "and" with "as well as"		
Zoning and compartmentalis- ation	Chapter 5.3. Article 5.3.7 (i)	Notification of disease outbreak relative to a compartment	Africa needs clarification if the reporting of an outbreak only refers to an outbreak within the compartment or does it also refer to outbreaks outside the compartment?	Algeria	Niger
Model health certificate for international trade in live animals	Chapter 5.10. Article 5.10.2 (2) Box 1.22	Requirements for wildlife management	Comment to submit if request submit if request submitted on annex 2 has been accepted (definition of wildlife maintained): Africa notes that the term "wildlife" is used in the model health certificate for international trade in live animals. It is in this regard that the Africa delegates appreciate and reiterate that the definition of "wildlife" in the glossary should not be removed Comment to submit if request submitted on annex 2 has been rejected (definition	Swaziland	Cote d'Ivoire

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
			The definition of "wildlife" has been deleted from the glossary. Africa needs clarification on the meaning (definition) of wildlife referred to in this article in the absence of the definition of wildlife in the glossary		
Prevention of Samonella	Chapter 6.5 Article 6.5.6 (3)	Use and re-use of litter.	In the English version, this paragraph is confusing i.e. "Litter should not be reused" in contradiction with "if litter is not removed" Consider rephrasing the paragraph. We propose to reformulate the first sentence as follow: "the litter should not be reused as such" In the French version, the whole paragraph 3 has been removed; there is a need to align both versions.	Nigeria	Burkina Faso
Biosecurity procedures in poultry production	Chapter 6.4 Article 6.4.1	Trade relation of chapter Whole chapter	Africa thinks that the expression "and is not specifically related to trade" creates confusion. If the article is in the code it becomes a standard (in terms of SPS agreement) and is binding for trade. This comment applies to several chapters in the Code that were previously "guidelines" or annexes and now are chapters. Does it mean that they become standards? This chapter contains too much detail and could considered to shorten to contain only the critical elements of bioaccuring.	Egypt	Ethiopia

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
Stray dog population control	Chapter 7.7. Article 7.7.2 (3)	Definition of feral dogs	In the definition of feral dog, Africa proposes to remove the term "for successful reproduction" at the end of the sentence. The new definition would now read "domestic dog that has reverted to the wild state and is no longer directly dependent upon humans". In the French version we propose to replace "naturel" with "sauvage"	Gambia	Angola
Animal welfare and broiler chicken production	Draft Chapter 7.X.	Definition of backyard Definition of "intensive systems"	It is necessary to reconsider the definition as backyard chickens can have an acceptable level of biosecurity and/or be dedicated to export (e.g. in some West African countries, chickens produced in village systems are traded intensively at	Lesotho	Burkina Faso
		vyhole article	regional level) The definition of "intensive systems" needs to be clarified. It is not only access to outdoor that makes difference between intensive and semi- intensive, but factors such as density, level of inputs consumption, as well as productivity, also play a role. The whole article is too detailed and cannot be applied by all countries.		

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR	AFRICA POSITION	SPEAKER	SUPPORT
			Therefore, Africa recommends to the Code Commission to consider to refer the chapter back for review by the ad hoc Group following Member comments and not present it for adoption at this79th General Session.		
Anthrax	Chapter 8.1		Anthrax remains an important disease of livestock as well as wildlife in Africa. Africa wishes to thank the Code Commission for accepting the comments made by Africa at the 78th General Session. The changes are thus supported in their entire context.	Tanzania	Zimbabwe
Aujeszky's disease	Chapter 8.2. Article 8.2.1.	Wildlife status and country status	Africa takes note and support the principle that wildlife status does not affect the country status for this disease, and capacity to trade but this principle is not applied consistently in the Code. A clear policy on this is needed taking into account that for example in FMD, the presence of permanent carriers in wildlife do affect the free status	Chad	Ghana
Bluetongue	Chapter 8.3.	Whole chapter	Support: Africa wishes to express their support for the much needed changes in this chapter	Zimbabwe	Benin
Foot and mouth disease	Chapter 8.5.	Introduction	In the English text only: it is needed to add the word "also" in the sentence "For the purposes of this Chapter, ruminants include animals of the family of Camelidae (except Camelus dromedarius)"	Namibia	Sudan

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
			which will now read "For the purposes of this Chapter, ruminants also include animals of the family of Camelidae (except Camelus dromedarius)". This remark does not apply to the French version.		
		Article 8.5.47 (bis). OIE endorsed official control programme for FMD	Africa wishes to express full support for the insertion of this article in the FMD chapter. However clarity is needed on both the benefits as well as possible negative aspects for a Member in applying for endorsement of its official control program. We have in addition comments on the following points: At bullet point 1: "submit documented evidence on the capacity of the veterinary services to control FMD. This evidence can be provided by countries following the OIE PVS Pathway". For Africa, the meaning of this sentence is not clear. The results/report of the PVS can be used as evidence, even it is not compulsory. Africa suggests to change the second part of the sentence after FMD to "such as reports of PVS analysis" At bullet point 2, in the English version only (this remark does not apply to the French version which is clear), the bullet point 2 "submit documentation	Namibia	Sudan

STANDARD	CODE CHAPTER	PROPOSED CHANGE FOR ADOPTION	AFRICA POSITION	SPEAKER	SUPPORT
			indicating that the official control programme for FMD is applicable to the entire territory;" Africa suggests to replace "territory" with "country". In both versions at bullet point 4 "submit a dossier on the epidemiology of FMD in the country describing the following:" Africa suggests to replace "dossier" with "documentation".		
Procedures for self-declaration and for official recognition by the OIE	Chapter I.6.	Questionnaires for evaluation of control programs and for applying for disease-free status	These questionnaires and the proposed minor amendments are supported as it facilitates members to obtain and submit the necessary data	Zambia	Tunisia
Lumpy skin disease	Article 11.12.1 (bis)	Safe commodities	An explanation is needed for the addition then the deletion of the text related to milk and meat as safe commodities.	Gabon	Egypt
Classical swine fever (CSF)	Chapter 15.2. Article 15.2.1	General provisions	Africa acknowledges the application of the rule of not discriminating against countries should the disease occur in wildlife and request that this principle also be considered for other diseases such as FMD (principle of jurisprudence) However, due to the current revision of the chapter by an ad hoc Group to provide for official recognition of CSF, it is recommended that the changes not be adopted until the new revised chapter is presented for adoption.	Niger	Mauritania

ANNEX 4: CONTACT ADRESSES OF DIRECTORS OF VETERINARY SERVCES

NO	COUNTRY	NAME OF DIRECTOR	PHYSICAL ADDRESS and POST OFFICE
Ι.	ALGERIA	Dr. Rachid Bouguedour Directeur des Services Vétérinaires Ministère de l'Agriculture et du Développement Rural	12, Boulevard Colonel, Amirouche 16000 ALGER, ALGERIE Tel: (213-21) 743 434/711712 Fax: (213-21) 743 434/7463 33 Email: dsval@wissal.dz; rbouguedour@yahoo.fr
2.	ANGOLA	Dr. Jose Antonio Directeur général des services vétérinaires Ministério da Agricultura do Desenvolvimento Rural	Av. Comandante Gika-Largo Antonio Jacinto No. 55-56, C.P. 10578, LUANDA- ANGOLA Tel: (244-222) 324 067/323 217/321 429 Fax: (244-222) 324 067 Email: dnap@ebonet.net Ricardona 16@yahoo.com.br
3.	BENIN	Dr. Hounga Richard Lokossou Directeur de l'élevage Ministère de l'agriculture, de l'élevage et de la Pêche	BP 2041, COTONOU, BENIN Tel: (229) 21 331815978 Fax: 229 213 354 08 Email: lokossourichard@yahoo.fr
4.	BOTSWANA	Dr. Kgosietsile Phillemon-Motsu Director, Ministry of Agriculture Department of Veterinary Services	Private Bag 0032 GABORONE, BOTSWANA Tel: +267 31 81 571 Fax: (+267) 39 03 744 Cell: +267 72983870 Email: kphilemon-motsu@gov.bw
5.	BURKINA FASO	Dr. Lassina Ouattara Directeur général des services vétérinaires Ministère des ressources animales Direction générale des services vétérinaires	09 Ouagadougou B.P 907, BURKINA FASO Tel: (226) 5032 4584/307650/326053 Mobile: (226) 70200670 Fax +226 50318475 Email: dvs@fasonet.bf; sielassina.ouattara@gmail.com
6.	BURUNDI	Dr. Emmanuel NKEZABAHIZI Directeur générale de l'élevage Ministère de l'agriculture et de l'Elevage	BP 161 Gitega Bujumbura, BURUNDI Tel: (257) 22402079; (257)2277741572 Fax: (257)22402133 Email: nkezaba@yahoo.fr
7.	CAMEROON	Dr Paul Yemgai Kwenkam Ag. Director of Veterinary Services/Deputy Director for Animal Health Directeur des Ser- vices de Vétérinaires, Ministère de l'élevage, des Pêches et des Industries Animales (MINEPIA). YAOUNDÉ, Cameroun	Tel: (237) 7083 7414 Fax: (237) 9681 5835 Email: yemgai@yahoo.com
8.	CAPEVERDE	Dr Afonso Maria Semedo de Ligório Director dos Servicios de Ganaderia Ministério do Ambiente, Agricultura e Pesca Direcção General de Agricultura, Silvicultura e Pecuária	DGASP-MA B.P 50 PRAIA, CAP-VERT Tél: (238) 264 75 39 / Fax: 238 264 7018 Email: afonso.semedo@mdr.gov.cv

NO	COUNTRY	NAME OF DIRECTOR	PHYSICAL ADDRESS and POST OFFICE
9.	CHAD	Dr. Adam Hassan Yacoub Directeur des Services de Vétérinaires Ministère de l'Elevage,	BP 750 N'DJAMENA,TCHAD Tel: (235) 66259717 Fax: (235) 52 777/520797 Email: ayacoub@gmail.com ; pacechad@intnet.td Adamhassan.yacoub@gmail.com
10.	COMOROS	DR. Abdourahim Faharoudine Délégué National de l'OIE Chef de Service santé Publique Vétérinaire Ministère de la Production et de l'Environnement	B.P. 774 MORONI, COMORES Tel: (+269) 33 27 19 Fax: (+269) 7738235 Email: fahar 1951@yahoo.fr
11	CONGO	Dr. Jean Ikolakoumou Directeur de la Sante Animale Ministère de l'Agriculture, de l'Elevage et de la Pêche	B.P. 83 Brazzaville-Congo Tel: +242 66 118 81 Fax: +242 5274743 Email: jikolakoumou@yahoo.fr
	Democratic Republic of Congo	Dr. Honoré Robert N'Lemba Mabela Directeur Chef des Services de la production et la santé Animales DPSA Ministeré de l'Agriculture, la pêche et l'Elevage	Rue Ponzi NO. 65 Quantier Ngansele Commune Mount. Ngafula C/O FAOR, B.P. 16096 KINSHASA/GOMBE, CONGO (REP. DEM.DU) Tel: +243 815 126 564/999902 967 Fax: 176 322 62145 Email: dr_nlemba@yahoo.fr pace.rdc@micronet.cd
	COTE D'IVOIRE	Dr Yobouet Charlotte AMATCHA-LEPRY Directeur des Services Vétérinaires et de la Qualité Ministère de la Production Animal et des ressources Halieutiques Direction des Services Vétérinaires Cité, Administrative	B.P.V 84 ABIDJAN Tour C, 11e Etage, CITAD, ABIDJAN Tel: (225) 20 21 89 72 / 20 22 69 77 Mobile: (225) 05 05 21 61/07074548 Fax: (225) 20219085 Email: miparh_dsvci@yahoo.fr
	DJIBOUTI	Dr. Mouassa Ibrahim Cheick Directeur général de l'élevage et des Ser- vices Vétérinaires Ministère de l'agriculture, de l'Elevage et de la mer	B.P. 297, DJIBOUTI Tel: (253) 351 301/351 025 Fax: (253) 357 061 Email: pace@intnet.dj
	EGYPT	Dr. Osama Mahmoud Ahmed Sleem Chairman of the General Organization of Veteri- nary Services (GOVS) Ministry of Agricultureb and Land Reclamation	Ist nadi El Seid Street-Dokki Giza 12618-CAIRO, EGYPT Tel: (202) 7481750 Fax: (202) 336 17 27 Email: govs.egypt@gmail.com Govs_egy@govs.gov.eg
	ERITREA	Afeweki Mehreteab Director of Veterinary Services Ministry of Agriculture APOD Technical services	P.O Box 4114/1048 ASMARA, ERYTHREE Tel: (291-1)181690 or (291-1)181077 ext 246 Fax: (291-1)181019 Email: Vet12@eol.com.er afewekim@moa.gov.er
	ETHIOPIA	Dr. Bewket Siraw Adgeh Chief Veterinary Officer & OIE Delegate for Ethiopia Director, Animal and Plant Health Regulatory Directorate, Ministry of Agriculture Lamberet (Near ILRI)	Lamberet (Near ILRI)P.O Box 62347, ADDIS ABABA , ETHIOPIA P.O Box 62347, Addis Ababa, ETHIOPIA Tel: (25111) 646 1277; (251(0)91 825 270 Fax: (25111) 64 62 003 Email: bsiraw@yahoo.com

NO	COUNTRY	NAME OF DIRECTOR	PHYSICAL ADDRESS and POST OFFICE
	GABON	Dr.Aubierge Moussavou Directrice Générale de l'Elevage	B.P. 136, LIBREVILLE Tel: +241 72 24 42 Mobile: +241 07680000/06219768 Email: aubiergefr@yahoo.fr
	GAMBIA	Dr. Kebba Daffeh Director of veterinary services Department of Veterinary services	ABUKO, The GAMBIA Tel: (+(220) 4390 820/7575; (220) 992 7736 Mobile: (+220) 990 2441 Fax: (220) 4397 575 Email: kebbadaffeh@yahoo.co.ke
	GHANA	Dr Edward Augustus Mark-Hansen Ag Director,Veterinary Services Directorate Ministry of Food and Agriculture	P.O Box M161,ACCRA, Ghana Tel. (233) 21 77 57 77 / 21 77 60 15 / 21 77 60 21 Mobile: (+233)243179567 Fax: (233) 21 77 60 21 / 21 66 82 45 Email: vsdghana@gmail.com; vsdghana@yahoo.com; medwardaudustus@yahoo.com
	GUINEA	Dr. Sory keïta Directeur National de l'Elevage, Ministère de l'agriculture, de l'Elevage, de l'Environnement et des Eaux et Forets Direction Nationale de l'Elevage)	MAE/DNE B.P. 5585, CONAKRY REBLIQUE DE GUINEE Tel: (224) 60436107 Fax: (224) 30 45 20 47 Email: k.sory@yahoo.fr
	guinea Bissau	Dr. Bernardo Cassama Directeur de Service Vétérinaires Ministério da Agriculture e Desenvolvimento Rural	C.P. 26, BISSAU, GUINEE-BISSAU Tel: 245 322 17 19 Fax: 245 72 21 719 Email: bernardocassama@yahoo.com.br pacegbissau@hotmail.com
	GUINEA EQUATORIAL	Dr. Silvestre Abaga Eyang Director General de Ganaderiary limentacion Ministerio de Agricultural Desarrollo Rural	Apartado 1041 MALABO, GUINEE EQUATORIALE Tel: +240 22227 39 24 Fax: +240 222 09 33 13/240 09 31 78 Email: silvestreabaga@yahoo.es
	KENYA	Dr. Peter Ithondeka Director of Veterinary Services Ministry of Livestock Department of Veterinary Services	Veterinay Research Laboraty P.O KANGEMI-00625, NAIROBI-KENYA Tel: +254 20 2700575/254 20 44363 Fax: +254 20 67641 Cell: +254 733 783 746 Email: vetdept@todaysonline.com peterithondeka@yahoo.com
	LESOTHO	Dr. Morosi Molomo Director General of Veterinary Services Department of livestock Services	Private Bag A 82 Maseru, 100 Tel: 266 223 123 18 Fax: 266 223 115 00 Email: molekomp@yahoo.co.uk
	LIBERIA	Dr. Joseph R. N. Anderdon Director of Veterinary Services	P.O Box 10-4094 MONROVIA, LIBERIA Tel: +231886 5400 23 E mail: Joeelson2000@yahoo.com jrnanderson@moa.gov.lr
	LIBYA	Dr. Abdunaser Dayhum Director, National Centre of Animal Health	P.O. Box 8352 Tripoli, LIBYA Tel: (218-21) 483 1019 Mobile : (218) 91 763 3383 Fax : (218-21) 483 2122 Email: adayhum@yahoo.com

NO	COUNTRY	NAME OF DIRECTOR	PHYSICAL ADDRESS and POST OFFICE
	MADAGASCAR	Dr Biarmann Marcelin CVO/Madagascar OIE Delegate Ministère de l'Elevage Farafaty Ampandrianomby Road	BP 291 Antananarivo 101, MADAGASCAR Tel: (261-20) 24 636 38; (261-33) 11 494 82 Email: mbiarmann@vahoo.fr
	MALAWI	DR. Patrick Chikungwa OIE National Delegates Director of Animal Health and Livestock Development Ministry of Agriculture and Food Security	P.O Box 2096 LILONGWE, MALAWI Tel: +265 175 3038 Mobile: +265 888371509 Fax: (265-1)75 13 49 Email: pchikungwa@yahoo.com
	MALI	Dr. Abdel Kader Diarra Directeur National des Services Vétérinaires	03 BP 220 BKO 3 BAMAKO, MALI Tel: (223) 222 2023/76 47 36 74/224 24 04 Fax: (223) 222 20 23 Email: adelkaderdiarra@yahoo.fr
	MAURITANIE	Dr. Baba Doumbia Directeur de l'Elevage et de l'Agriculture Ministère du Dèveloppement Rural Direction de l'Elevage	B.P 175-Bp 2750 Nouakchott, MAURITANIE Tel/Fax: 00222 529 76 79 / 224 55 50 Email: doumbia@mdr.gov.mr / demba. db@gmail.com
	MAURITIUS	Dr Deodass Meenowa Lewis Prayag Principal Veterinary Officer Ministry of Agro Industry and Fisheries Division of Veterinary Medicine	REDUIT, Mauritius Tel: (230) 466 66 62 Fax: (230) 464 2210 Email: dmeenowa@mail.gov.mu ; moa-dvs@mail.gov.mu
	MOZAMBIQUE	Dr. José Augusto Libombo Junior Deputy National Director of Veterinary Services Ministerio de Agricultura	Praca dos Herois Mocambicanos, PO Box 1406, Maputo, MOZAMBIQUE Tel: (258-21) 460082/81 Fax: (258-21) 460 479 Email: jlibombojr@yahoo.com.br
	NAMIBIA	Dr. Albertina Shiongo Chief Veterinary Officer Ministry of Agriculture, Water and Forestry	Private Bag 12022 Auspannplatz, Government park Windhoek 9000, NAMIBIA Tel: (264-61) 208 7513 Fax: (264-61) 208 7779 Email: shilongoac@mawrd.gov.na
	NIGER	Dr Ibrahim Bangana Directeur Général des Services Vétérinaires Ministère de l'Elevage	Niamey, NIGER Tel: (227) 9750 7240 / 2073 3184 Fax: (227) 20 733 184 Email: dgsvniger2011@gmail.com; ibangana@yahoo.fr
	REPUBLIC OF CENTRAL AFRICA	Dr. Emmanuel Namkoisse Directeur santé Animale Agence Nationale de Développement de L'Elevage (ANDE)	BP: 1509 Bangui Tel: (236) 7504 2978/70011721 Fax: (236) 21617425 Email: nam_emma@yahoo.fr
	NIGERIA	Dr. Joseph Nyager Director, Federal Ministry of Agriculture and Rural Development Department of Livestock and Pest control services	New Secretariat, Area 11, P.M.B. No. 135, Garki, Abuja, FCT, NIGERIA Tel: (234) 803 786 87 07 Fax: (234-9) 314 23 19 / 524 01 26 Email: nyagerj@yahoo.com

NO	COUNTRY	NAME OF DIRECTOR	PHYSICAL ADDRESS and POST OFFICE
	RWANDA	Dr. Rutagwenda Théogène Ministère de l'Agriculture et des Ressources Animales Directeur de l'Office Rwandais du Dèveloppe- ment des Ressources Animales (RARDA)	P.O. Box 621 MINAGRI, KIGALI, RWANDA Tel: (250) 084 75 493 Fax: (250) 589 716 / 585057 Email: rutagwendat2006@yahoo.com
	SAO TOME ET PRINCIPE	Dr. Natalina Vera Cruz Délégué de l'OIE Ministère de Plan et Développement Directeur de l'Elevage Ministère de Economia	Avenida marginal 12 de Julho Caixa Postal 718 SAO TOME ET PRINCIPE Tel : (239) 222 2386; (239) 990 3704 E-mail : natalinavc@hotmail.com
	SENEGAL	Dr. Mbargou Lo Directeur de l'Elevage Ministère de l'Elevage	37, Avenue Pasteur BP 67, DAKAR Tel: (221) 33 849 1971/76 Fax: (221) 33 849 1972 Email: mbargoulo@voila.fr
	SEYCHELLES	Dr. Jimmy Gelaze Melanie Director Veterinary Services Ministry of Environment and Natural Resources	P.O.Box 166,Victoria Mahe, SEYCHELLES Tel: + (248) 285 950/722 869 Fax: + (248) 225 245 Email: vetmamr@seychelles.net
	SIERRA LEONE	Mr. Francis A-R Sankoh Director of Livestock Services Division Ministry of Agriculture, Forestry and Food Security	Youyi Building FREETOWN, SIERRA LEONE Tel: (232) 242 167; (232) 076 734 580 Email: farsankoh@yahoo.com
	SOMALIA	Dr. Habiba Sheikh Hassan, Director of veterinary services Ministry of Livestock,Forestry and Range Somalia TFG- Somalia	P.O. BOX 8403 GPO Nairobi, Kenya. Mobile: +254722878678 Email: habibahamud@yahoo.com
	SOUTH AFRICA	Dr. Botlhe Michael Modisane Chief Director, Animal Production and Health Department of Agriculture, Forestry & Fisheries	Private Bag X138 Pretoria 0001 SOUTH AFRICA Tel: (27-12) 319 7463 Fax: (27-12) 319 7535 Email: Botlhem@daff.gov.za
	SUDAN	Dr.Awadelkarim Muktar Under Secretary Ministry of Animal Resources & Fisheries	PO Box 293 Khartoum, SUDAN Tel: (249) 9 12 417 978 Fax: (249) 834 75 996 Email: awadkarim@hotmail.co.uk
	SWAZILAND	Dr. Roland Xolani Dlamini Director, Veterinary and Livestock Services Ministry of Agriculture	PO Box 162 Mbabane H100, SWAZILAND Tel: (268) 760 62602 Fax: (268) 2505 6443 Email: dlaminirol@gov.sz;
	TANZANIA	Dr.Win Mleche Director of Veterinary Services Ministry of Live- stock Development and Fisheries	PO Box 9152 Dar Es Salaam, TANZANIA Mobile: (+255) 784358549 Fax: +255222862592 Email: dvs@mifugo.go.tz ; wcmleche@yahoo.co.uk
	TOGO	Dr. BATAWUI Komla Batassé Directeur de l'Elevage et de la Pêche Ministère de l'Agriculture, de l'Elevage et de la Pêche	9, Avenue des Nîmes BP 4041, LOME, TOGO Tél : 228 221 36 45/ 221 60 33 Mobile: 228 909 27 30 Fax: 228 221 71 20 Email: dbatawui@yahoo.fr

NO	COUNTRY	NAME OF DIRECTOR	PHYSICAL ADDRESS and POST OFFICE
	TUNISIA	Dr Abdelhak Ben Younes Directeur Général des Services Vétérinaires Ministère de l'Agriculture,	30 Rue Alain Savary 1002 Tunis TUNISIA Tel: (216) 7 1 794 586 Fax: (216) 71 787 906 Email: abdelhak.benyounes@iresa.agrinet.tn
	UGANDA	Dr Nicholas Kauta Ag. Director Animal Resources Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)	PO Box 513 ENTEBBE, UGANDA Tel: (256-41) 320 825 Mobile: 256-772-653139 Fax: (256-41) 320 428/321 070 Email: dar.maaif@infocom.co.ug ; nicholaskauta@yahoo.co.uk
	ZAMBIA	Dr Joseph Mubanga Director Chief Veterinary Officer Department of Veterinary Services Ministry of Agriculture and Livestock	P.O. Box 50060 Mulungushi House Lusaka, ZAMBIA Tel: (260) 211 256679 Fax: (260) 211 252608/256007 E-mail: mumujos@yahoo.com
	ZIMBABWE	Dr. Unesu Ushewokunze-Obatolu, Director, Division of Veterinary Field Services Department of Livestock & Veterinary Services Agriculture, Mechanisation & Irrig. Deve Bevan Building, 18, Borrowdale Road, Opposite St. Georges' College	P.O. Box CY56 Causeway Harare, ZIMBABWE Tel: (263 4) 738 645 Mobile: (263) 772219763 Fax: (263 4) 700 327 E-mail: dvfs@mweb.co.zw; dvfs@vetservices.co.zw; newazvo@hotmail.com



African Union – Interafrican Bureau for Animal Resources (AU-IBAR) Kenindia Business Park Museum Hill, Westlands Road PO Box 30786 00100 Nairobi Kenya Tel: +254 (20) 3674 000 Fax: +254 (20) 3674 341 / 3674 342 Email: ibar.office@au-ibar.org Website: www.au-ibar.org