Pan African Animal Health Yearbook

2009

African Union
Interafrican Bureau for Animal Resources

Pan African Animal Health Yearbook

2009

Interafrican Bureau for Animal Resources (IBAR)
African Union (AU)
P.O.Box 30786 code 00100
Nairobi, Kenya
ibar.office@au-ibar.org
www.au-ibar.org

Pan African Animal Health Yearbook

An AU-IBAR Publication

Applications for such permission should be addressed to:
The Director
African Union – Interafrican Bureau for Animal Resources (AU-IBAR)
Kenindia Business Park
Museum Hill, Westlands Road
P.O. Box 30786
00100, Nairobi, KENYA
or by e-mail to: ibar.office@au-ibar.org

ISSN 1811-007X

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PREFACE

In recent years, the increase in mobility of people, animals and animal products due to globalization has increased the risk of spread of animal diseases within and beyond national borders; This, in addition to the inadequate capacity for early warning, early detection, rapid response and effective exchange of information on disease situation and capacity for risk analysis, is a real threat to animal health and productivity, food security as well as economic and social development. The African Union Interafrican Bureau for Animal Resources (AU-IBAR) has facilitated the exchange of disease surveillance information since its establishment six decades ago and has continued to assist Member States in enhancing socioeconomic development through enhanced animal health, production, trade and marketing.

Disease surveillance is an essential tool for the effective operation of all animal health programs and has specific significance in the control and prevention of diseases. Comprehensive disease reporting is key in integrated disease surveillance and rapid response. The Pan African Animal Health Yearbook was established in an effort to monitor disease situation in African Member States (MS), with the objective of collecting and analyzing disease data from MS to facilitate decisions making for disease control and prevention.

In line with the aforementioned, the number of African countries reporting their animal disease status through monthly reports to AU-IBAR has increased in recent years. I take note of the fact that 47 out of the 53 AU MS submitted their monthly reports during the year as compared to the previous year when 44 countries did. As part of capacity building in areas of animal health information management, AU-IBAR is revamping the Animal Resources Information System (ARIS) to capture and transfer disease data in real time. I hope that the improvement in quality and quantity of disease reports from MS and better management of information at AU-IBAR will respond well to current needs for early detection and rapid response to transboundary, emerging and re-emerging diseases.

I commend the national veterinary services in AU Member States for the timely submission of quality disease reports in 2009 and urge them to sustain this exemplary performance. I appeal to the rest of national veterinary services to join the others. It is only through meaningful cooperation and collaboration with MS that AU-IBAR can deliver on its mandate.

Professor Ahmed El-Sawalhy
Director, AU-IBAR

ACKNOWLEDGEMENT

The Director of AU-IBAR appreciates the continuous support from the directors of veterinary services, the Chief Veterinary Officers and staff members of veterinary services in the AU Member States and in particular the 47 Member States who submitted reports in 2009. The commitment of the epidemiology units of these Member States in their continuous effort to process data in a timely manner is also appreciated. The efforts and commitment of the AU-IBAR editorial team are highly commendable and appreciated.

ABBREVIATIONS AND ACRONYMS

AHS	African horse sickness
ALive	African Livestock Platform
ASF	African swine fever
AUC	African Union Commission
AU-IBAR	African Union- Interafrican Bureau for Animal Resources
CAR	Central Africa Republic
CBPP	Contagious bovine pleuropneumonia
CCPP	Contagious caprine pleuropneumonia
COOPI	Cooperazione Internazionale
CSF	Classical swine fever
DRC	Democratic Republic of Congo
ECF	East coast fever
EDRSAIA	Early Detection Reporting and Surveillance - Avian Influenza in Africa
FAO	Food and Agriculture Organization of the United Nations
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
IRCM	Integrated regional coordination mechanism
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 organization of animal health
PANVAC	Pan African Vaccine Center
PPR	Peste des petits ruminants
RAHC	Regional Animal Health Centers
RP	Rinderpest
RVF	Rift Valley fever
R S.A	Republic of South Africa
SMR	Small ruminants
TAD	Transboundary Animal Diseases
TB	Tuberculosis
TCP	Technical cooperation projects
USAID	United States Agency for International Development
VSF	Veterinarians without borders

EXECUTIVE SUMMARY

During the year 2009, 47 of the African Union (AU) Member States (MS) submitted their animal disease status reports to AU-IBAR. This was quite an improvement as compared to 44 MS who submitted their reports in 2008. Out of the expected 636 monthly disease reports from all MS, 551 were received as compared to 505 reports received in 2008.

A total of 104 different diseases were reported with 12,651 outbreaks and 1,011,477 cases in domestic animals, wild animals and humans. Of these, the avian species contributed the highest number of cases representing 63%, followed by bovine with 25% and small ruminants with 10%. Swine, dogs, cats, equine, camel, wildlife and human cases contributed 2%. The wildlife species affected were lion, jackal, hyena, genet, greater kudu, common eland, African buffalo, kudu, warthog, waterbuck and bees.

For transboundary animal diseases the highest number of outbreaks were reported for peste des petits ruminants (PPR), lumpy skin disease (LSD) and new castle disease, while for other diseases of economic and zoonotic importance, the highest number of outbreaks were reported for rabies, brucellosis and trypanosomosis.

The continent remained free of rinderpest (RP) and eight more countries were accredited status of freedom from RP by the OIE bringing the total accredited to 39. These are Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Congo, Democratic Republic of Congo (DRC), Cote-d'Ivoire, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Rwanda, Senegal, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

Despite an increase in number and the improvement in quality of disease reports from MS, some challenges remain. These include delay in submissions, incomplete reports with missing key parameters such as geo-reference data, control measures employed, indication of serotypes incase of FMD, and specification of the particular or individual species affected in case of zoonoses (For example, in case of rabies, particulars of species affected were not provided). Finally, goat and sheep are often not identified separately and are referred to as small ruminants.

1. INTRODUCTION

Livestock is a major part of African agricultural sector and plays an important role in food and economic security through provision of a variety of products and services including hides, skins, meat, draught power, manure, fiber, energy and capital accumulation. Besides its significant contribution to agricultural gross domestic product (GDP) and to food security in many countries, livestock is an intrinsic part of people's identity and way of life.

Animal diseases reduce the contribution of livestock to the livelihoods of the livestock keepers. Furthermore, the occurrence of transboundary animal diseases (TAD) such as FMD, RVF, CBPP, PPR and HPAI has continued to hamper the development of the livestock sub-sector. In the wake of the rising demand for animal products, these diseases continue to reduce Africa's capacity to achieve self-sufficiency in food security, and pose significant impediments to national and regional trade in livestock and livestock products, and as a consequence Africa remains a net importer of animal products.

Disease surveillance is an essential tool for the effective implementation of animal health programs and has specific significance in the control and prevention of diseases. Completeness of disease reporting is one of the key factors in disease early warning and rapid response.

The Pan African Animal Health Yearbook was established in an effort to monitor disease situation in African Member States (MS), with the objective of collecting and analyzing disease data from MS to facilitate decisions making for disease control and prevention.

The active participation of all MS in disease reporting is important, and thus far has contributed greatly to the improvement of the information and the compilation of the Pan African Animal Health yearbook.

2. STATUS OF DISEASE REPORTING DURING 2009

2.1 Trend from 2000 to 2009

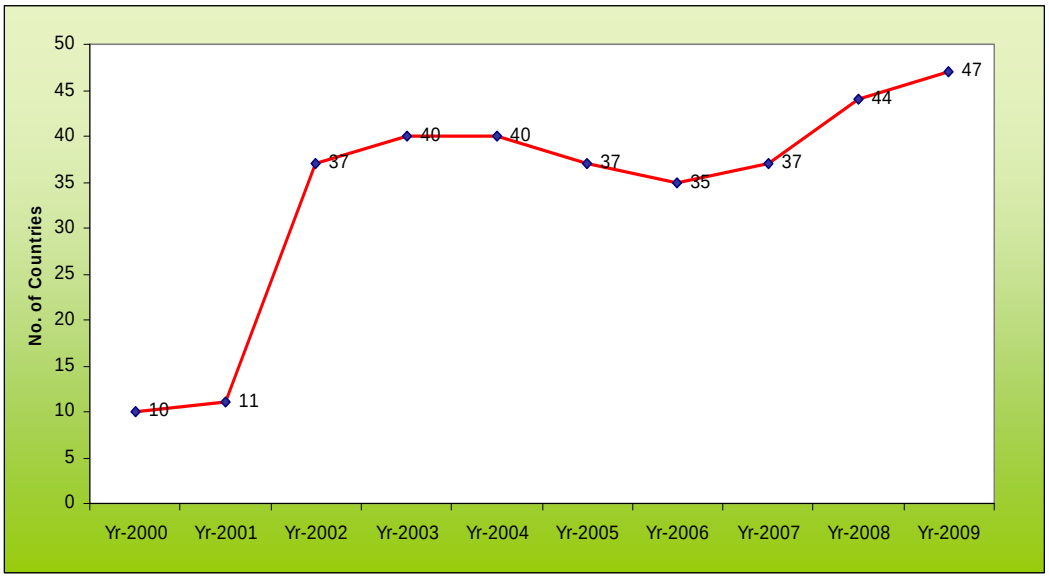
Compared to 2008, the year 2009 showed an increase in the number of disease reports received from MS. This is attributed to sensitization and awareness creation done among MS.

Table 1 and Figure 1 show the trend in numbers of countries making disease reports to AU-IBAR (2000-2009).

Table 1: Trend in numbers of countries making disease reports to AU-IBAR (2000-2009)

Year	No. of countries that reported	Expected number of Country reports	% of Countries reporting
2000	10	53	18.87
2001	11	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

Figure 1: Trend in numbers of countries making disease reports to AU-IBAR (2000-2009)



2.2 Status in 2009

In 2009, 47 out of the 53 member states submitted their disease reports to AU-IBAR and a total of 551 out of the expected 636 monthly disease reports from MS were received. A total of 12,507 outbreaks and 1,013,938 cases were reported in different domestic animals, wild animals and humans and of these, the avian species contributed the highest proportion of cases with 63%, followed by bovine with 25% and small ruminants with 10% (Table 2). Swine contributed 1%, dogs and cats 0.5 %, equines 0.3%, camels, wildlife and humans 0.2%. Twelve (12) species of wildlife were affected namely lion, jackal, hyena, genet, greater kudu, common eland, African buffalo, kudu, warthog, waterbuck, and bees.

There were no reports from Cape Verde, D.R. Congo, Equatorial Guinea, Liberia, Libya and Saharawi. Seychelles submitted their report for the whole year but no disease was reported. The following countries, Egypt, Rwanda and Madagascar submitted reports for only part of the year. All the other countries submitted their reports for the whole year (annex 1).

Forty six percent (46%) of the countries reported using the AU-IBAR format, 30% OIE format, 15% own country format and 9% SADC format (Figure2). This has had implications on the frequency of submission of reports to IBAR as with other formats, MS are requested to submit their reports twice a year (every six months).

To achieve our target of monthly submission we are therefore appealing MS to submit their reports not later than 15 days after the end of the month.

Table 2: Proportion of outbreaks by species as reported by Member States in 2009

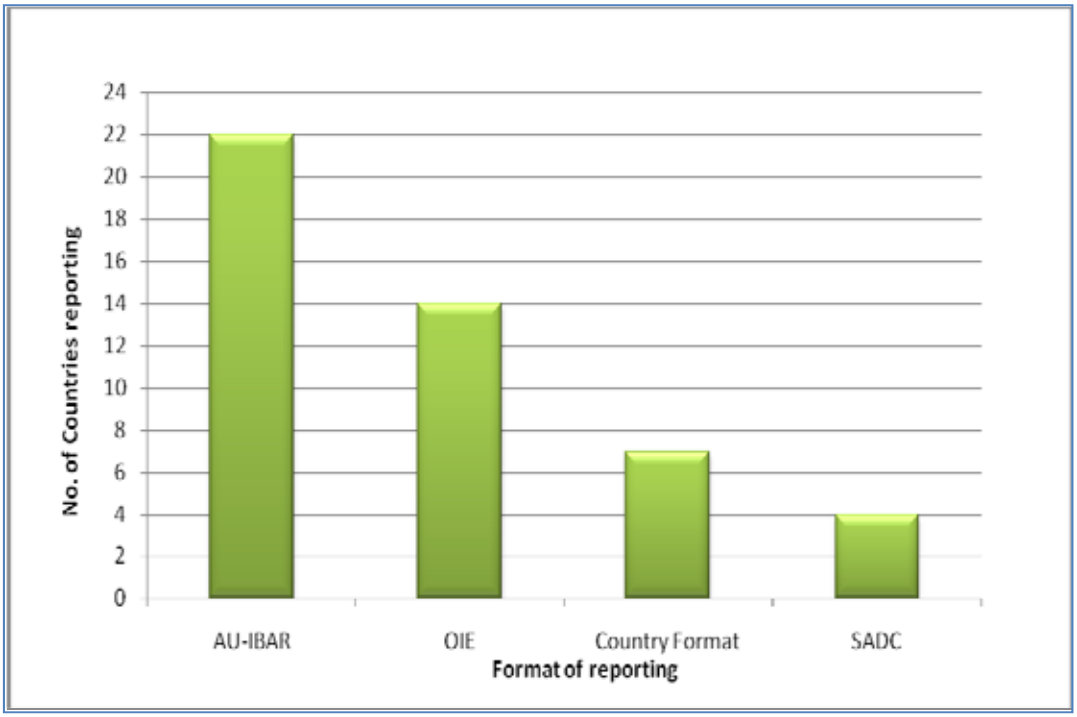
Number	Species	Number of outbreaks	Proportion of outbreaks
1	Bovine	6420	51.41
2	SMR	3445	27.59
3	Avian	1068	8.55
4	Canine & Feline	996	7.98
5	Porcine	199	1.59
6	Camel	166	1.33
7	Equine	122	0.98
8	Wildlife	69	0.55
9	Human	2	0.02
	Total	12,487	100

Table 3: Some important diseases reported by MS in 2009 ranked by number of outbreaks

No	Disease	Number of outbreaks	Number of cases	Number of deaths	Number of countries reporting
1	Rabies**	1,343	15,333	1,989	32
2	Brucellosis**	836	9,212	405	20
3	Peste des petits ruminants (PPR)*	740	36,507	14,980	20
4	Trypanosomosis**	584	92,051	3,419	19
5	Lumpy skin disease (LSD)*	575	13,054	753	25
6	Newcastle disease (ND)*	567	201,069	106,416	32
7	Anaplasmosis**	550	9,463	1,472	18
8	Heartwater**	549	8,539	1,593	18
9	Sheep and goat pox *	535	18,146	2,529	11
10	Babesiosis**	452	5,157	706	18
11	Dermatophilosis**	444	4,755	478	11
12	Blackleg**	427	11,763	2,584	26
13	Foot -and -mouth disease (FMD)*	378	33,776	976	26
14	Tuberculosis**	349	4,787	1,093	17
15	Contagious bovine pleuropneumonia (CBPP)*	213	15,187	2,355	20
16	Anthrax**	155	4,253	2,301	22
17	Infectious bursal disease (IBD)**	133	52,474	16,449	12
18	African swine fever (ASF)*	130	10,240	7,530	19
19	Contagious caprine pleuropneumonia (CCPP)**	57	3,155	1,037	7
20	Theileriosis **	57	47,132	3,100	16
21	Rift Valley fever (RVF)*	42	417	198	3
22	Bluetongue*	37	884	248	6
23	African horse sickness (AHS)*	15	1,321	413	7
24	Classical swine fever (CSF)*	NS	102	86	1
Total		9,168	598,777	173,110	406

NS=Not specified; * = Transboundary Animal Disease (11 diseases); ** Other important diseases (13 diseases).

Figure 2: The number of countries using different report formats to AU-IBAR



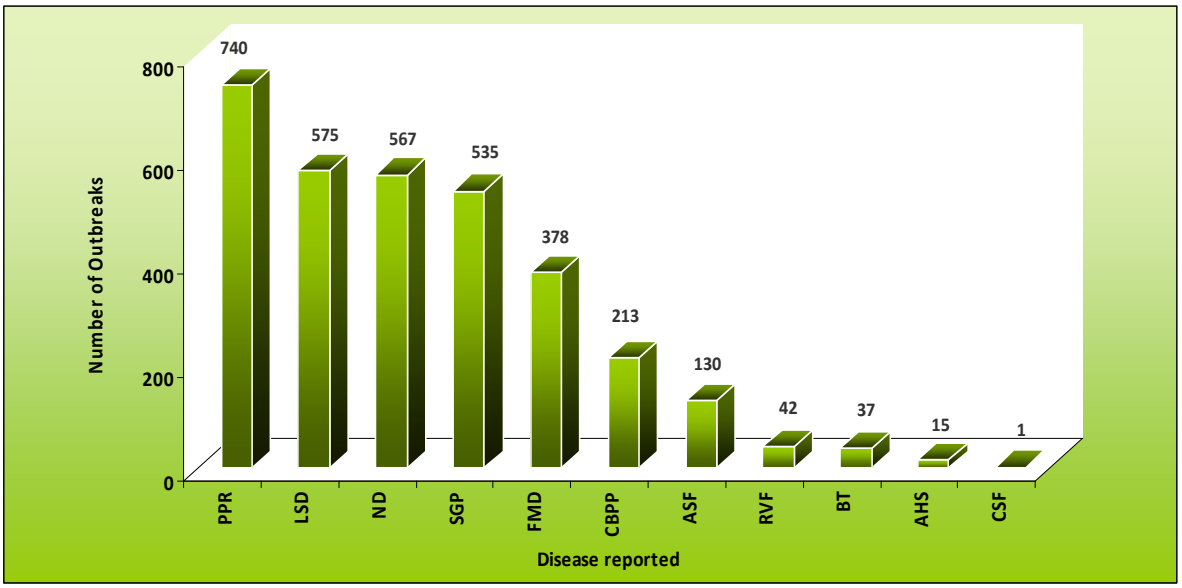
3. GENERAL DISEASE SITUATION IN AFRICA

In 2009, 104 diseases, ranging from major TADs and zoonoses to parasitic diseases and other infections were reported. The complete listing of these diseases with some quantitative data is presented in Annex 2 with the major ones in table3. Algeria was the only country that reported diseases in bees. No disease reports on fish and other aquatic animals were received. Similarly, the disease occurrences in wildlife and in humans in the case of zoonoses were not reported on a regular basis.

3.1 Transboundary Animal Diseases

The following TADs were reported in 2009: FMD, PPR, LSD, RVF, Bluetongue, Sheep & Goat pox, AHS, ASF, CSF and ND (Table 3). Rift Valley fever was reported in South Africa, Comoros and Zimbabwe only. Classical swine fever was reported in Madagascar only. All the other diseases had a relatively higher spread on the continent. Among them, PPR, LSD and ND were the most frequently reported diseases with 740, 575 and 567 outbreaks, respectively. The PPR outbreaks accounted for 22.0% of all outbreaks, LSD 17.0% and ND for 16.9%. Figure 3 shows the number of outbreaks reported for each of the 11 TADs.

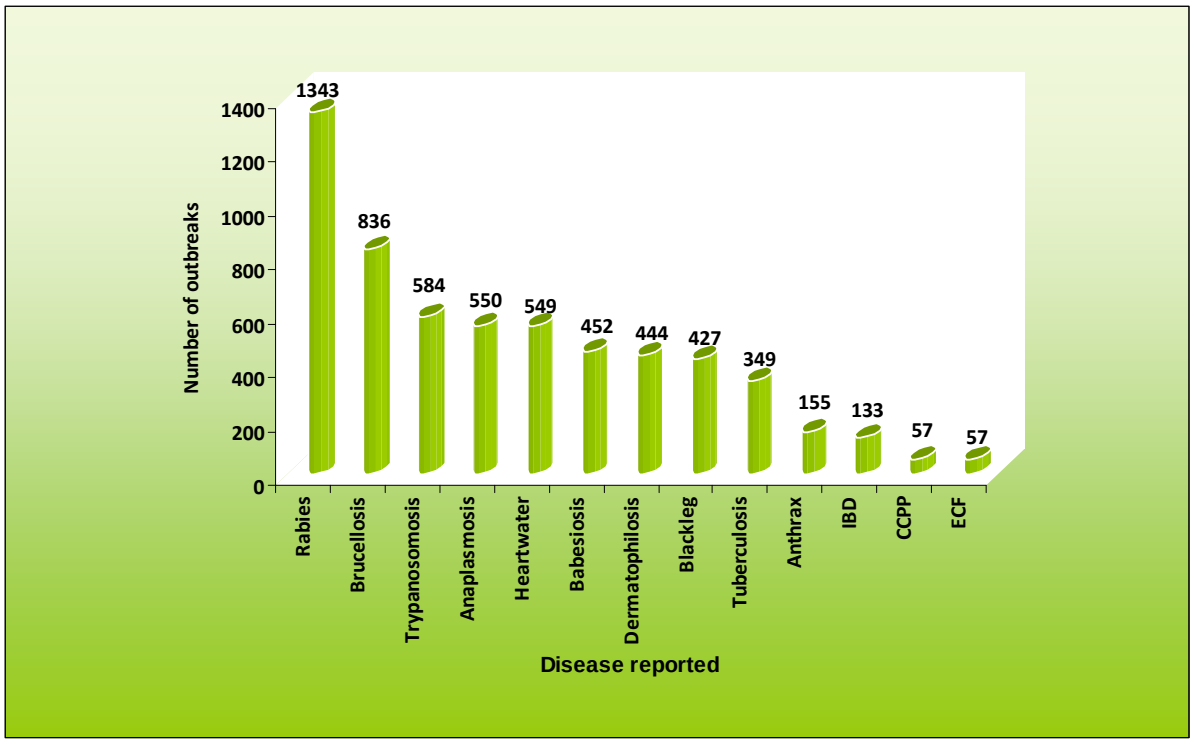
Figure 3: Number of outbreaks of TADs in 2009



3.2 Other important diseases

Other important animal diseases also ranked high based on either the number of countries affected, the number of outbreaks, cases or deaths during the reporting year (Figure 5) in terms of outbreaks, rabies had the highest number (1343), followed by brucellosis (836), trypanosomosis (584), babesiosis (452), and anaplamosis (550) as shown in Figure 4.

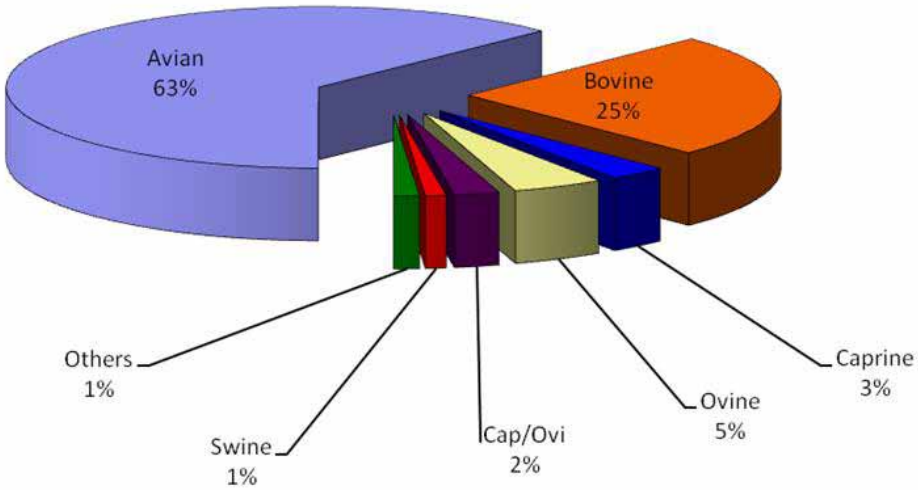
Figure 4: Number of outbreaks for other important diseases in 2009



3.3 The proportion of cases by species affected

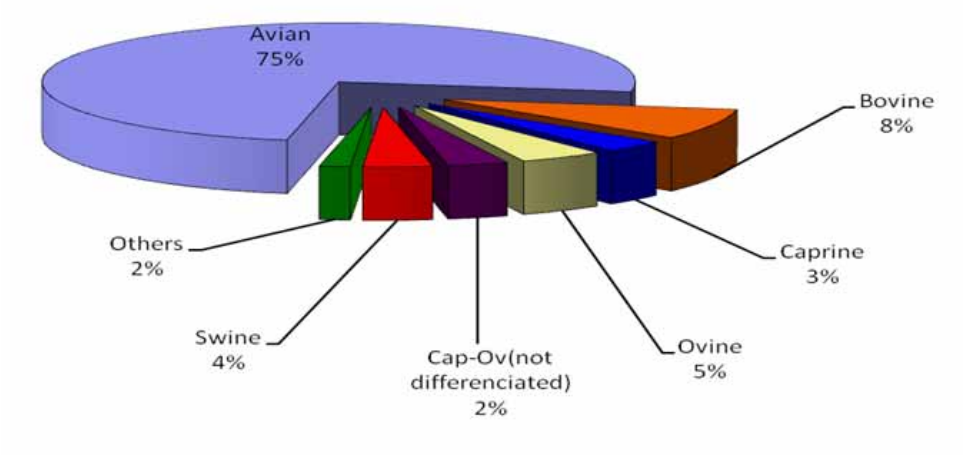
The groups affected by diseases in 2009 included domestic and wild animals as well as human beings. For some diseases affecting more than one group e.g trypanosomosis, rabies and sheep and goat pox, disease reports were not specified. The avian species constituted more than half of all cases 63% followed by bovine 25% and caprine and ovine 10%. Others including equine, feline, bees, camels, humans, rabbits and wildlife species constituted 2%. Figure 5 shows the proportion of outbreaks by species.

Figure 5: The proportion of cases by species in 2009



The proportion of species of animals that died during the disease outbreaks reported in 2009 is presented in Figure 6. The Avian species were the majority (75%), followed by caprine and ovine (10%) and bovine (8%).

Figure 6: The proportion of mortalities by species in 2009



4.1 Transboundary Animal Diseases

4.1.1 African horse sickness (AHS)

In 2009, 7 countries reported outbreaks of AHS as presented in Table 4. A total of 15 outbreaks affecting 1321 horses with 413 deaths were recorded. The majority of the outbreaks, 9/15 (60%) were reported in Namibia. All the 7 countries except Angola and Botswana, reported the disease in both 2008 and 2009. The number of outbreaks in 2009 was substantially lower than in 2008. The disease affected the southern, Eastern, Western and Northern part of the continent with no reported outbreaks in the central part of the continent.

Table 4: : Countries reporting AHS in 2009

Country	Outbreaks	Cases	Deaths
Namibia	9	16	5
South Africa	2	611	245
Ethiopia	1	474	152
Angola	1	212	8
Senegal	1	4	0
Gambia	NS-	3	3
Botswana	1	1	0
7 countries	**15**	**1,321**	**413**

NS= Not specified

4.1.2 African swine fever (ASF)

During the year, ASF was reported in 19 countries. A total of 130 outbreaks involving 10240 cases and 7530 deaths were recorded. Burkina Faso reported the highest number of outbreaks, 17%, followed by Benin and Namibia, with each recording 15%. The disease was widely reported on the continent except for the Northern region and compares with 2008 when 18 countries were affected (D.R. Congo, Burundi, Malawi, Nigeria, Rwanda, Benin, Togo, Uganda, Ghana, Burkina Faso, Zambia, Madagascar, Angola, Mozambique, Tanzania, Cameroon, South Africa, and Namibia). Slaughter was the preferred method of control in most countries. Table 5 shows countries reporting ASF in 2009.

Table 5: Countries reporting ASF in 2009

Country	Outbreaks	Cases	Deaths
Burkina Faso	22	2,517	1,898
Benin	20	3,898	3021
Namibia	20	433	333
Cameroon	14	199	175
Togo	8	110	83
CAR	8	70	70
Mozambique	6	162	141
Niger	6	79	64
Uganda	5	400	76
Guinea Bissau	5	69	53
Ghana	5	126	93
Zambia	4	220	86
Malawi	3	455	448
Rwanda	3	411	373
Senegal	1	16	16
Congo	NS	20	12
Angola	NS	135	135
Burundi	NS	371	0
Madagascar	NS	549	453
19 countries	**130**	**10,240**	**7,530**

NS= Not specified

4.1.3 Bluetongue

During the year, 6 countries reported 37 outbreaks, 884 cases and 248 deaths related to blue tongue. Algeria had the highest number of outbreaks 43% followed by Namibia, 19% and Lesotho, 16%. South Africa reported the highest number of cases, 52.7%, and fatalities, 88.7%. The majority of the cases reported were concentrated in the Southern region of the continent. This distribution is similar to the one of the previous year (2008). Table 6 shows the countries reporting the disease.

Table 6: : Countries reporting bluetongue in 2009

Country	Outbreaks	Cases	Deaths
Algeria	16	58	12
Namibia	7	288	10
Lesotho	6	48	6
Tunisia	5	21	0
South Africa	3	466	220
Comoros	NS	3	0
6 countries	**37**	**884**	**248**

NS=Not specified

4.1.4 Classical swine fever (CSF)

In 2009, only Madagascar reported the disease. Although the number of outbreaks was not specified, the country recorded total of 102 cases and 86 deaths. In the previous year, it was also the only country that reported CSF outbreaks, recording much higher numbers of both cases and deaths 723 and 656 respectively. The significant reduction in the number of cases and deaths was attributed to the control measures instituted.

4.1.5 Contagious bovine pleuropneumonia (CBPP)

During the year, 21 countries reported the disease as compared to 17 in the previous year; 213 outbreaks, 15,187 cases and 2,355 deaths were reported compared to 355 outbreaks, 47,405 cases and 13,928 deaths in 2008. Ghana had the highest number of outbreaks, 24%, followed by C.A.R 21%and Nigeria 9.8%. Nigeria had the highest number of cases, 57.7%, followed by C.A.R 20%.

Table 7: Countries reporting CBPP in 2009

Country	Outbreaks	Cases	Deaths
Ghana	51	113	1
C.A.R.	45	3,137	1,104
Nigeria	21	8,778	333
Somalia	17	88	19
Burkina Faso	10	163	83
Cote d'Ivore	8	349	45
Zambia	8	265	81
Chad	7	673	389
Kenya	6	9	1
Niger	6	31	34
Togo	6	18	7
Mali	5	156	50
Uganda	5	37	0
Sudan	4	166	59
Cameroon	4	73	28
Namibia	4	16	0
Ethiopia	3	381	58
Benin	3	42	9
Angola	NS	661	37
Tanzania	NS	31	17
20 countries	**213**	**15,187**	**2,355**

NS= Not specified

More or less the same countries reported the disease in 2008 and 2009 with outbreaks mainly reported in the Western and Eastern regions of the continent. Slaughter and vaccination were the preferred control methods in most of the countries.

Table 7 shows the countries reporting CBPP in Africa in 2009.

In 2009 and according to the provisions of the terrestrial animal code, Botswana is the only country that was recognized free from CBPP. Senegal was the only country that was self-declared 'provisionally free' from the disease where vaccination was not practiced.

4.1.6 Foot- and- mouth disease (FMD)

During the year, 26 countries reported a total of 378 outbreaks, 33776 cases and 976 deaths. Somalia had the highest number of outbreaks, 15.8%, followed by Benin, 14% and Senegal,11%.

Egypt reported serotypes A and O, Benin serotypes A, O, and SAT 2, Rwanda serotypes A, O, and SAT 2 and Togo serotypes O and SAT 1. All the other countries reporting FMD did not specify the FMD serotypes isolated during outbreaks. Benin, Rwanda and Togo had reported the same FMD serotypes as in the previous year (2008), an indication that perhaps same serotypes were circulating. Table 8 shows the serotypes of FMD virus reported during the last 4 years and table 9 the countries reporting FMD.

Control measures implemented for FMD used during the year included vaccinations, quarantines and movement control. The movement of infected animals is the most important factor in the spread of FMD within the endemically infected regions. The ecosystem based approach for defining the epidemiological patterns of FMD in endemic areas, which has been tried in South America may be readily applied to other parts of the world with any coordinated regional or global

strategy for FMD control being based on a sound epidemiological assessment of the incidence and distribution of FMD as well as risk factors.

Table 8: Reporting AU Member States indicating FMD Serotypes since 2006 to date.

Country	FMD Sero-Types		
	2006 & 2007	2008	2009
Benin		O, SAT 1 & 2	O, SAT 1 & 2
Egypt	A, O	-	A, O
Rwanda	NS	A, O, SAT 2	A, O, SAT 2
Togo	NS	O, SAT 1	O, SAT 1
Botswana	SAT 1 & 2	SAT 2	-
South Africa	SAT 1 & 3	-	-
DRC	SAT O	-	-
Ethiopia	SAT O		-
Mauritania	SAT A	-	-

NS=Not specified

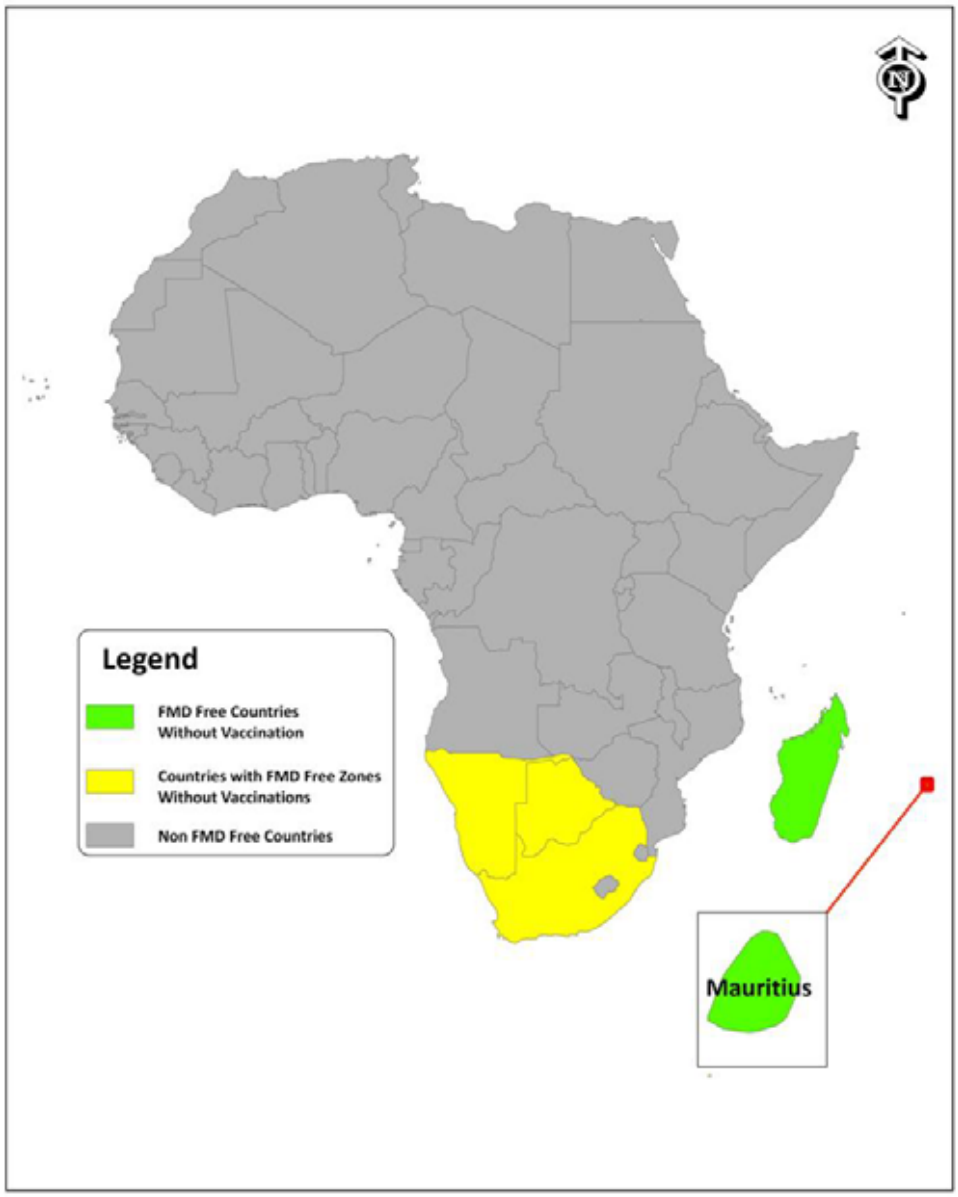
In 2009, based on the provisions of OIE, only two countries namely, Madagascar and Mauritius were recognized as FMD free where vaccination is not practiced. In the same year, three countries namely Botswana, Namibia and South Africa were recognized as countries with free zones where vaccination is not practiced. Map 1 shows the FMD Freedom status in 2009 in accordance with the OIE.

Table 9: Countries reporting FMD in 2009

Country	Outbreaks	Cases	Deaths
Somalia	60	1,078	35
Benin	54	4749	100
Senegal	43	913	23
Burkina Faso	40	3,744	52
Niger	36	225	10
Ghana	32	1086	18
Cameroon	21	335	19
Togo	17	155	45
Nigeria	18	1,240	21
Ethiopia	13	9,235	116
South Africa	8	790	0
Zimbabwe	8	128	0
Cote d'Ivoire	6	145	1
C.A.R.	5	59	0
Sudan	5	863	455
Rwanda	3	105	7
Burundi	2	2,984	0
Uganda	2	161	0
Zambia	1	2,409	19
Malawi	1	41	0
Namibia	1	2	0
Eritrea	1	320	0
Kenya	1	247	2
Tanzania	NS	2,290	5
Egypt	NS-	324	10
Chad	NS	148	38
26 countries	**378**	**33,776**	**976**

NS=Not specified

Map 1: Map 1: FMD freedom status of MS in 2009 as per OIE



4.1.7 Highly pathogenic avian influenza (HPAI)

During the year, outbreaks were only reported in countries where the disease has become endemic. Egypt has been the main focus of outbreaks with up to seven human fatalities confirmed so far from 19 cases in 30 outbreaks. The Egyptian health authorities confirmed a total of 3 new human cases of HPAI (H5N1) in June, from the Governorates of Dakahlia, Dumyat and Kafr el-Sheikh. All these cases were in children aged between 1 and 4 years, who had close contact with infected birds.

4.1.8 Lumpy skin disease (LSD)

In 2009 53% countries reported 575 outbreaks, 13054 cases and 753 deaths. Zimbabwe recorded the highest number of outbreaks, 52.5%, followed by Namibia 17.5% and Zambia 6%. Generally, most of the outbreaks were reported in the southern region of the continent. Zambia reported most of the deaths, 40%, followed by Ethiopia 22% and Namibia 15% as indicated in table 10.

Table 10: Countries reporting LSD in 2009

Country	Outbreaks	Cases	Deaths
Zimbabwe	302	1,340	11
Namibia	101	1,620	118
Zambia	37	1,210	271
Niger	25	184	5
Swaziland	18	91	0
Somalia	16	225	34
Togo	15	46	2
Botswana	9	24	5
South Africa	8	299	8
Burkina Faso	7	35	1
Uganda	6	208	0
Sudan	6	169	38
Kenya	5	9	0
Mozambique	4	67	0
Benin	4	15	2
Malawi	3	22	0
Senegal	3	8	0
Cameroon	2	12	2
Ethiopia	1	4,865	170
Burundi	NS	1,828	0
Angola	1	173	27
Djibouti	1	6	0
Nigeria	1	6	0
Madagascar	NS	505	42
Tanzania	NS	87	17
25 countries	**575**	**13,054**	**753**

NS=Not specified

4.1.9 Newcastle disease (ND)

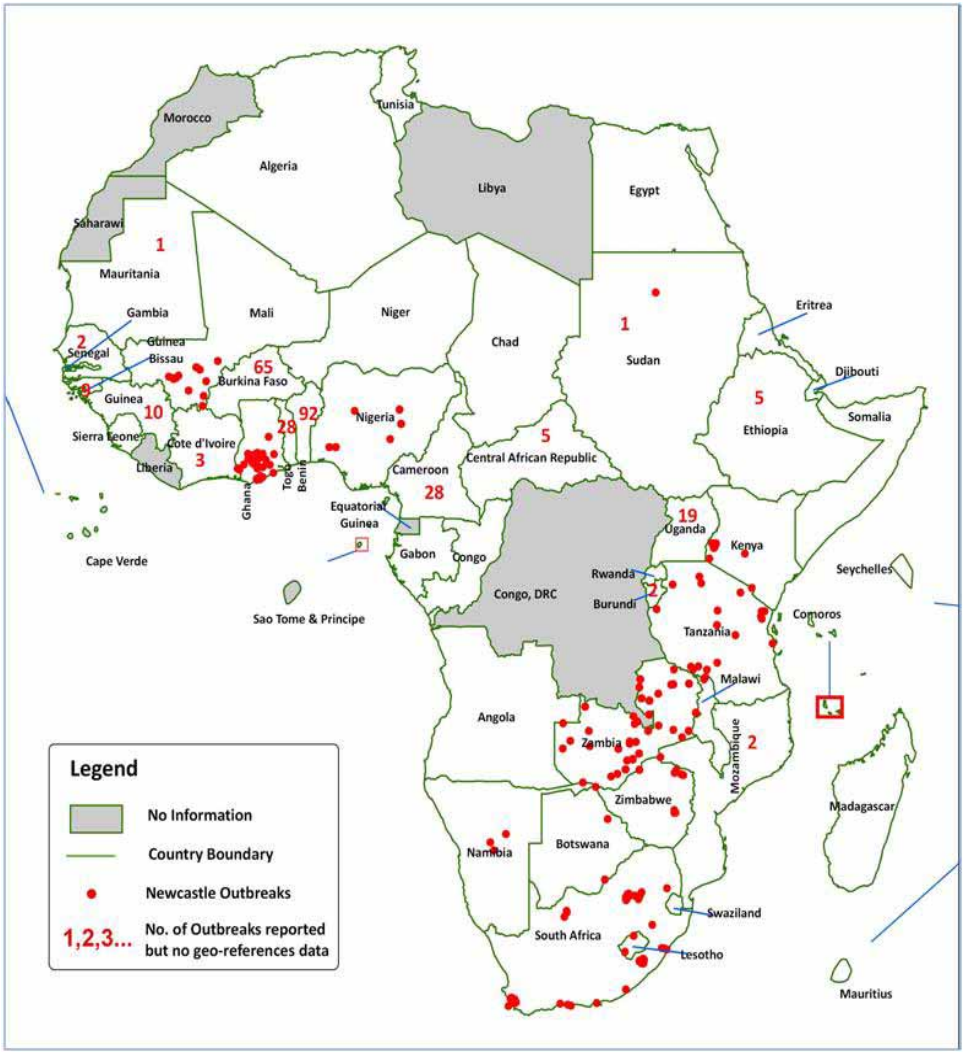
Thirty two (32) countries reported 567 outbreaks, 201069 cases and 106416 deaths. Ghana recorded the highest number of outbreaks, 27%, followed by Benin, 16%, Burkina Faso, 11% and Zambia, 11%. Uganda recorded the highest number of cases (20%), followed by South Africa (16%). Table 11 shows countries reporting ND in 2009 and Map 2 shows the spatial distribution of ND in Africa in 2009.

Table 11: Countries reporting ND in 2009

Country	Outbreaks	Cases	Deaths
Ghana	154	15,410	9,101
Benin	92	23,433	12,647
Burkina Faso	65	7,759	5,146
Zambia	62	7,810	5,510
Togo	28	1,853	1,209
Cameroon	28	4,258	3,991
Nigeria	26	9,311	2,695
Uganda	19	41,664	1,677
Mali	15	3,806	2,956
Kenya	12	447	128
South Africa	11	32,203	33,502
Guinea	10	621	489
Zimbabwe	9	438	320
Guinea Bissau	6	109	63
Ethiopia	5	2,687	423
C.A.R.	5	589	456
Namibia	4	54	30
Cote d'Ivoire	3	12,400	2,501
Senegal	2	150	150
Lesotho	2	115	113
Burundi	2	7,086	0
Botswana	2	5	3
Mozambique	2	20	19
Malawi	1	4,758	4,751
Sudan	1	52	45
Mauritania	1	6	1
Tanzania	NS	22,059	16,954
Madagascar	NS	779	537
Congo	NS-	774	563
Chad	NS	239	251
Gambia	NS	114	125
Angola	NS	60	60
32 countries	**567**	**201,069**	**106,416**

NS=Not specified

Map 2: Spatial distribution of Newcastle disease in 2009



4.1.10 Peste des petits ruminants (PPR)

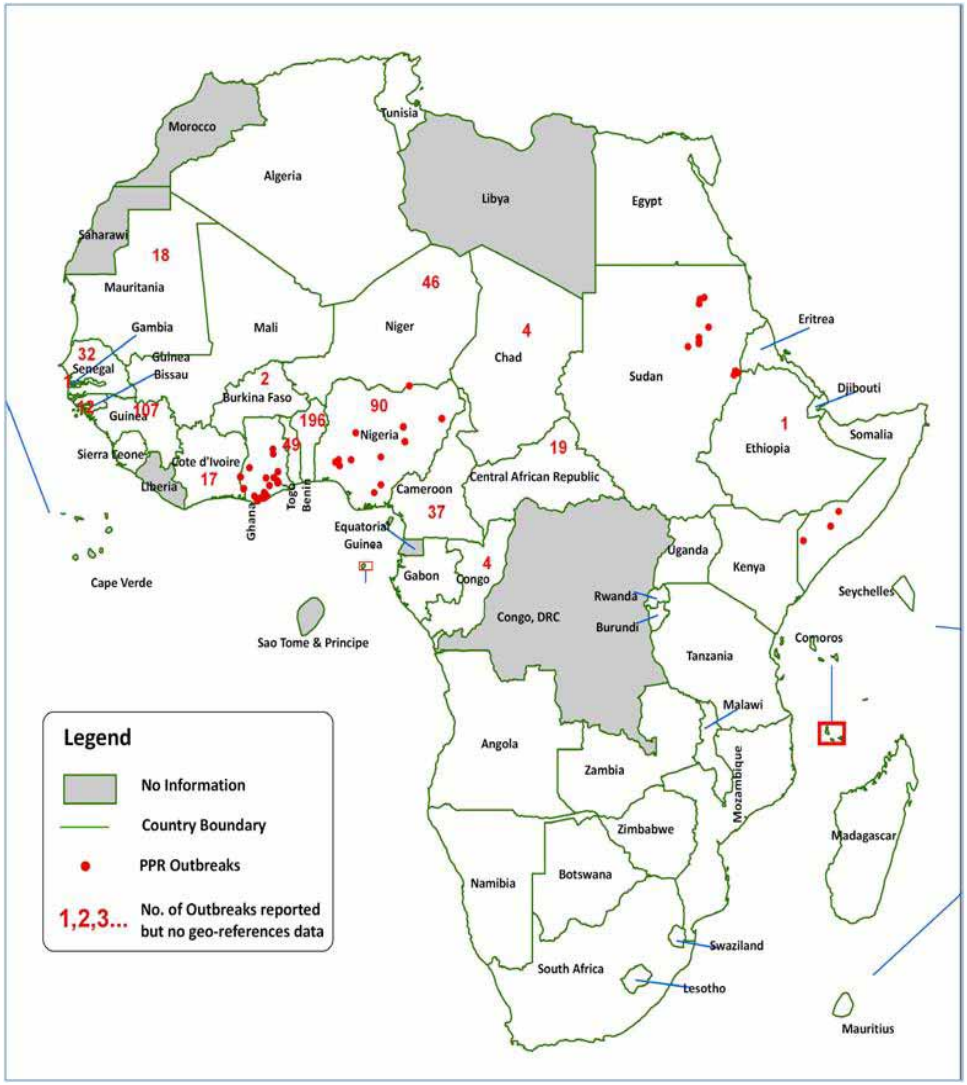
Twenty (20) countries reported 740 outbreaks of PPR, 36507 cases and 14980 deaths. Benin reported the highest number of outbreaks, 26%, followed by Guinea 14% and Nigeria 12%. The highest number of cases was recorded by Benin 24%, followed by Nigeria 17% and Sudan 12%. Table 12 shows countries reporting PPR whereas Map 3 shows spatial distribution of PPR in Africa in 2009.

Table 12: Countries reporting PPR in 2009

Country	Outbreaks	Cases	Deaths
Benin	196	8,956	2,424
Guinea	107	3,074	1,822
Nigeria	90	6,446	668
Ghana	63	522	100
Togo	49	667	341
Niger	46	849	474
Cameroon	37	695	555
Senegal	32	691	277
Sudan	25	4,527	2,582
C.A.R.	19	689	393
Mauritania	18	116	0
Cote d'Ivoire	17	532	177
Somalia	17	1,248	163
Guinea Bissau	12	147	47
Chad	4	282	112
Congo	4	276	205
Burkina Faso	2	135	105
Ethiopia	1	4,380	2,364
Gambia	1	2,162	2,092
Sierra Leone	NS	113	79
20 countries	**740**	**36,507**	**14,980**

NS=Not specified

Map 3: Spatial distribution of PPR in Africa in 2009



4.1.11 Rift Valley fever (RVF)

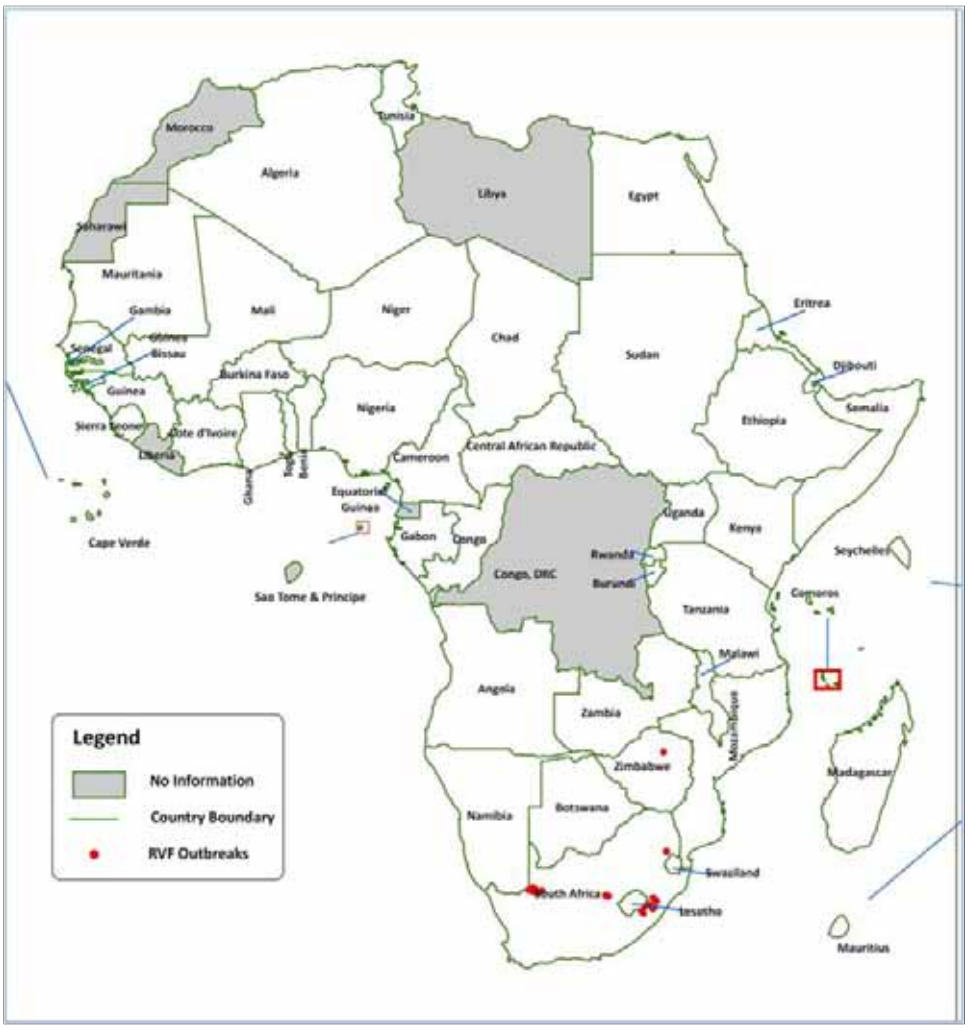
In 2009, 3 MS reported a total of 42 outbreaks, 417 cases and 198 deaths related to RVF. Compared to the previous year, South Africa again reported the highest number of outbreaks, 97.6%, followed by Zimbabwe with 2.3%. South Africa also reported the highest number of deaths, 96.8%followed by Comoros 4%. Table 12 shows countries reporting RVF in 2009 and Map 4 the spatial distribution of the disease in the same year.

Table 13: Countries reporting RVF in 2009

Country	Outbreaks	Cases	Deaths
South Africa	41	399	197
Zimbabwe	1	2	1
Comoros	NS	16	0
3 countries	**42**	**417**	**198**

NS=Not specified

Map 4: Spatial distribution of RVF in Africa in 2009



4.1.12 Sheep and goat pox

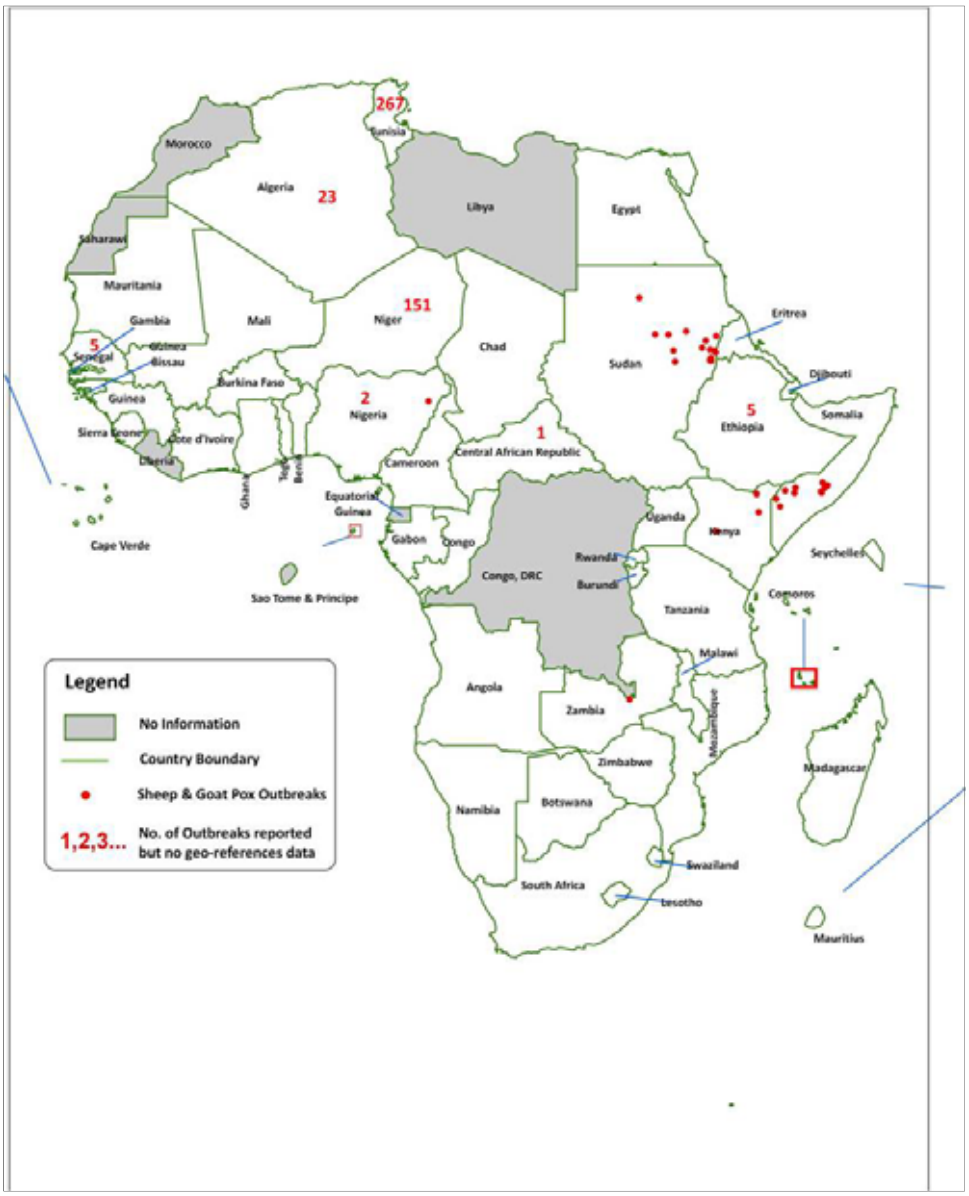
Eleven (11) Member States reported 535 outbreaks, 18146 cases and 2529 deaths related to the disease. Tunisia reported the highest number of outbreaks, 50%, followed by Niger 28%, and Somalia 10%. The highest number of cases reported in Ethiopia, 55%, followed by Somalia, 14% and Niger, 10%. Table 13 shows countries reporting sheep and goat pox and Map 5 the spatial distribution of the disease in 2009.

Table 14: Countries reporting sheep and goat pox in 2009

Country	Outbreaks	Cases	Deaths
Tunisia	267	1,701	157
Niger	151	1,904	1,118
Somalia	56	2,607	110
Sudan	24	1,171	140
Algeria	23	457	38
Ethiopia	5	10,033	919
Senegal	5	175	29
Nigeria	2	1	0
C.A.R.	1	34	0
Zambia	1	5	4
Kenya	NS	58	14
11 countries	**535**	**18,146**	**2,529**

NS=Not specified

Map 5: Spatial distribution of sheep and goat pox in Africa in 2009



4.2 The detailed description of other important diseases

4.2.1 Anaplasmosis

In 2009, eighteen (18) countries reported 550 outbreaks, 9,464 cases and 1472 deaths related to anaplasmosis. Zimbabwe recorded the highest number of outbreaks, 70%, followed by Zambia 8.7% and Swaziland 7.4%. Zimbabwe also recorded the highest number of cases, 36%, followed by Zambia23.6% and Uganda 17%. Table 14 shows countries reporting anaplasmosis in 2009 and Map 5 the spatial distribution of the disease in 2009.

Table 15: Countries reporting Anaplasmosis in 2009

Country	Outbreaks	Cases	Deaths
Zimbabwe	386	3,486	225
Zambia	48	2,238	859
Swaziland	41	60	27
South Africa	35	294	27
Somalia	19	294	15
Uganda	10	1,629	48
Sudan	3	120	13
Mozambique	3	103	2
Botswana	2	201	200
Lesotho	2	38	9
Namibia	1	5	0
Tanzania	NS	478	42
Burundi	NS	374	0
Kenya	NS	63	0
Madagascar	NS	36	0
Angola	NS	22	0
Comoros	NS	21	5
Malawi	NS	1	0
18 countries	**550**	**9,463**	**1472**

NS=Not specified

4.2.2 Anthrax

During the year, 22 countries reported 155 outbreaks, 4253 cases and 2301 deaths related to anthrax. Niger recorded the highest number of outbreaks 22%, followed by Zimbabwe 20% and Guinea 14.8%. The highest number of cases was recorded in Ethiopia, 68%, followed by Niger 8.3% and Guinea 4%. Table 15 shows countries reporting anthrax in Africa in 2009.

Table 16: Countries reporting Anthrax in 2009

Country	Outbreaks	Cases	Deaths
Niger	34	353	292
Zimbabwe	31	161	110
Guinea	23	174	129
Somalia	19	134	76
Burkina Faso	6	16	13
Namibia	6	80	80
Eritrea	5	70	51
Zambia	5	28	13
Ghana	5	19	19
Mali	4	58	53
Lesotho	4	14	14
South Africa	3	35	22
Cameroon	3	20	14
Guinea Bissau	3	20	11
Cote d'Ivoire	2	23	6
Benin	1	17	17
Senegal	1	2	2
Ethiopia	NS	2,902	1,267
Angola	NS	94	94
Kenya	NS	13	9
Tanzania	NS	11	5
Chad	NS	6	2
Rwanda	NS	3	2
22 countries	**155**	**4,253**	**2,301**

NS=Not specified

4.2.3 Trypanasomosis

In 2009, 19 countries reported 584 outbreaks, 92,051 cases and 3419 deaths related to trypanosomosis. Benin recorded the highest number of outbreaks, 42%, followed by Somalia, 36%. The highest number of cases was recorded in Benin 60%, followed by Uganda 24% cases. However, these reports did not give the species of infecting trypanosomes. Table 16 shows the countries reporting tryanosomosis in 2009.

Table 17: Countries reporting trypanosomosis in 2009

Country	Outbreaks	Cases	Deaths
Benin	250	55,785	1,596
Somalia	209	2,289	94
Togo	39	439	38
Zambia	18	2,805	1,331
Zimbabwe	13	48	2
Uganda	11	22,207	45
Nigeria	11	3,952	214
Niger	10	173	28
Ghana	8	76	4
South Africa	6	226	8
Mozambique	3	19	11
Guinea Bissau	3	58	1
C.A.R.	2	43	2
Senegal	1	5	3
Burundi	NS	3,383	0
Tanzania	NS	301	17
Kenya	NS	228	22
Ethiopia	NS	12	3
Angola	NS	2	0
19 countries	**584**	**92,051**	**3,419**

NS=Not specified

4.2.4 Babesiosis

In the year under review, 18 MS reported a total of 452 outbreaks, 5157 cases, and 706 deaths related to babesiosis. Zimbabwe reported the highest number of disease outbreaks, 55%, followed by Swaziland12.6% and South Africa 9%. The highest number of cases was reported by Burundi, 10%, followed by Zambia 16.8% and South Africa 13.4% cases. Table 17 shows countries reporting babesiosis in the year.

Table 18: Countries reporting babesiosis in 2009

Country	Outbreaks	Cases	Deaths
Zimbabwe	249	595	144
Swaziland	57	132	61
South Africa	42	691	86
Niger	34	460	85
Somalia	27	409	51
Zambia	22	870	224
Uganda	11	198	6
Lesotho	4	29	8
Mozambique	4	6	1
Sudan	2	17	10
Madagascar	NS	193	5
Tanzania	NS	148	21
Benin	NS	98	2
Comoros	NS	58	0
Kenya	NS	18	0
Niger	NS	16	2
Burundi	NS	1,219	0
18 countries	**452**	**5,157**	**706**

NS=Not specified

4.2.5 Blackleg

During the year, 26 countries reported 427 outbreaks, 11,763 cases and 2,584 deaths related to blackleg. Zimbabwe recorded the highest number of outbreaks, 55%, followed by Swaziland 13% and Zambia 11% outbreaks. The highest number of cases was recorded by Ethiopia, 20%, followed by Zambia, 12.7% and Zimbabwe, 9.8% as shown in table 18.

Table 19: Countries reporting blackleg in 2009

Country	Outbreaks	Cases	Deaths
Zimbabwe	235	1,158	585
Swaziland	57	209	42
Zambia	48	1,499	797
Niger	20	103	166
Somalia	14	99	82
Namibia	14	77	35
South Africa	10	72	30
Niger	4	56	16
Lesotho	4	36	24
Senegal	4	20	16
Senegal	3	2,377	558
Malawi	3	21	17
Ethiopia	2	480	7
Cameroon	2	31	0
Ghana	2	9	7
Uganda	2	8	3
Guinea Bissau	1	5	0
Benin	1	1	1
Botswana	1	1	0
Sudan	NS	5,230	148
Angola	NS	117	23
Burundi	NS	95	0
Tanzania	NS	37	7
Gambia	NS	19	19
Chad	NS	2	1
Kenya	NS	1	0
26 countries	**427**	**11,763**	**2,584**

NS=Not specified

4.2.6 Brucellosis

Twenty countries reported 836 outbreaks, 9212 cases and 405 deaths related to brucellosis in 2009. Algeria recorded the highest number of outbreaks, 50%, followed by South Africa, 17% and Algeria,15%. The highest number of cases was recorded in South Africa, 64%. Table 19 shows countries reporting brucellosis and Map 6 the spatial distribution of the diseases in 2009.

Table 20: Countries reporting brucellosis

Country	Outbreaks	Cases	Deaths
Algeria	376	768	1
South Africa	144	5,856	254
Algeria	129	687	0
Swaziland	67	302	0
Mozambique	21	179	1
Uganda	19	778	76
Zimbabwe	16	27	2
Namibia	11	55	0
Zambia	11	235	54
C.A.R.	10	80	0
Tunisia	9	64	0
Tunisia	7	14	1
Namibia	4	22	0
Togo	3	5	0
Sudan	3	20	0
Cameroon	2	110	16
Somalia	2	6	0
Botswana	1	1	0
Swaziland	1	1	0
Kenya	NS	2	0
20 countries	**836**	**9,212**	**405**

NS=Not specified

Map 6: distribution of brucellosis in 2009

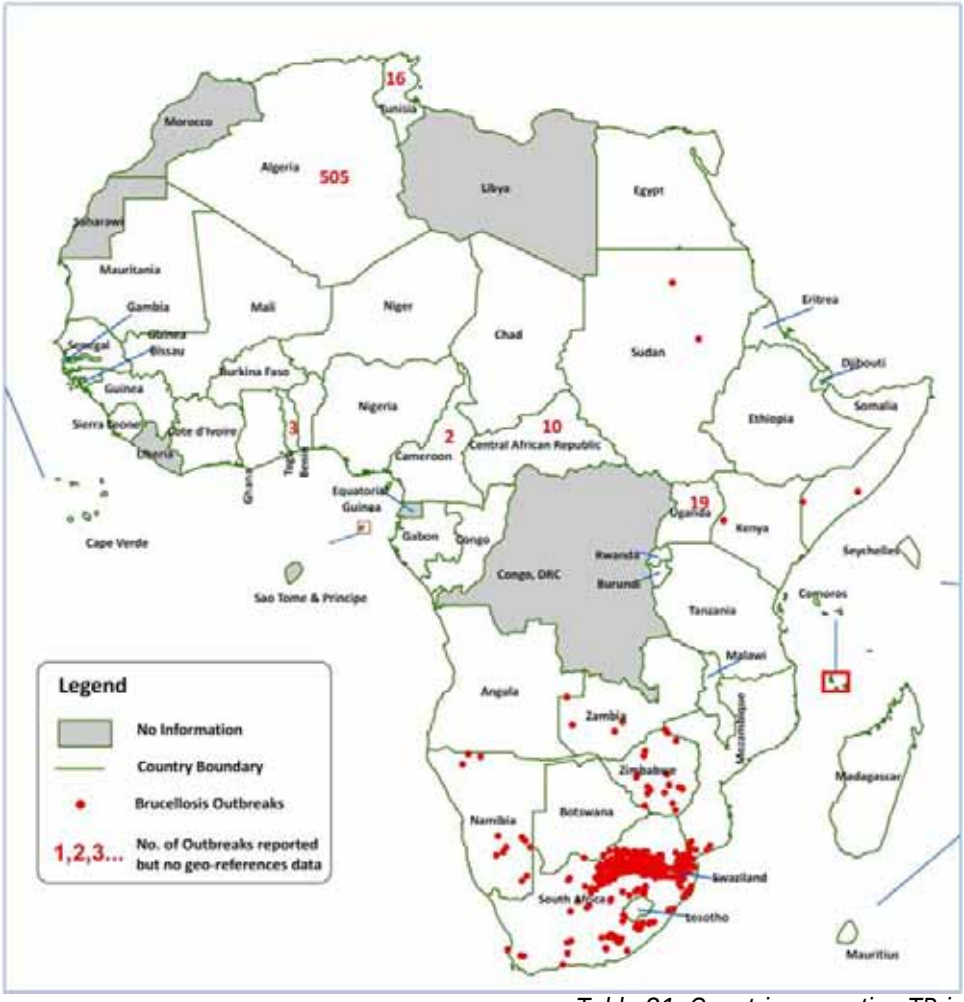


Table 21: Countries reporting TB in 2009

Country	Outbreaks	Cases	Deaths
Algeria	139	264	0
Ghana	88	217	0
Cote d'Ivoire	39	178	0
C.A.R.	23	668	219
Benin	16	691	3
Mozambique	15	425	416
Togo	13	61	2
Zambia	5	435	431
South Africa	5	129	13
Nigeria	2	2	1
Uganda	1	5	0
Cameroon	1	2	0
Zimbabwe	1	17	0
Mali	1	8	2
Madagascar	NS	5	5
Tunisia	NS	1,654	0
Angola	NS	26	1
17 countries	**349**	**4,787**	**1,093**

NS=Not specified

4.2.7 Tuberculosis (TB)

Seventeen countries reported 349 outbreaks, 4,787 cases and 1,093 deaths related to TB in 2009. Algeria contributed the highest number of outbreaks, 139/349 (39%), followed by Ghana, 88/349 (25%). The highest number of cases was recorded by Tunisia, 35.5%, followed by Benin 14% and C.A.R 14%. Table 20 shows countries reporting bovine T.B in the year.

4.2.8 Contagious caprine pleuropneumonia (CCPP)

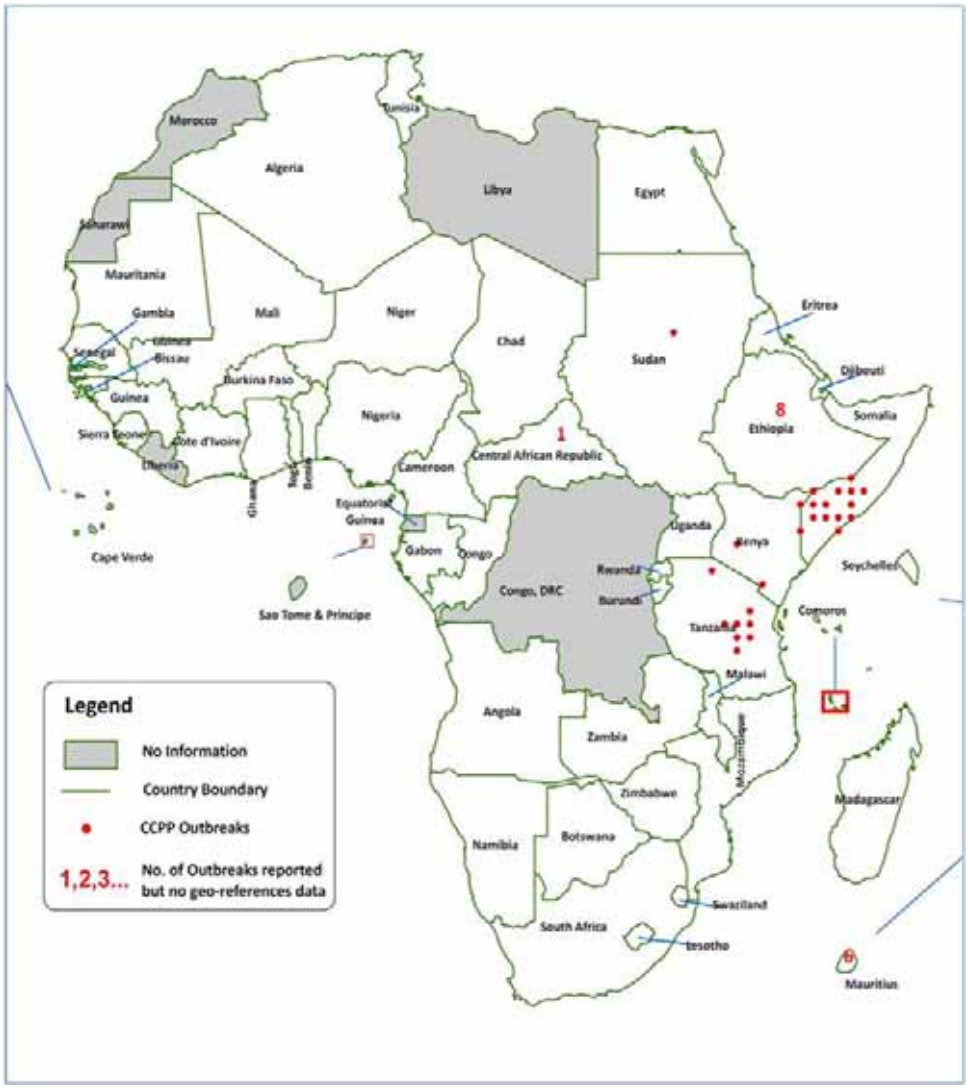
Seven countries reported a total of 57 outbreaks, 3,155 cases and 1,037 deaths related to CCPP. Somalia reported the majority of the outbreaks, 70%, followed by Ethiopia 14%and Mauritius10%. The majority of the cases were reported in Somalia, 1536/3155 (48.6%), followed by Ethiopia 28% and Mauritius 16.8%. Table 21 shows countries reporting CCPP and Map 6 the spatial distribution of the disease in Africa in 2009.

Table 22: Countries reporting CCPP in 2009

Country	Outbreaks	Cases	Deaths
Somalia	40	1,536	220
Ethiopia	8	889	248
Mauritius	6	530	530
Sudan	1	5	0
Kenya	1	3	1
C.A.R.	1	1	0
Tanzania	NS	191	38
7 Countries	**57**	**3,155**	**1,037**

NS=Not specified

Map 7: Spatial distribution of bovine CCPP in 2009



4.2.9 Dermatophilosis

Eleven countries reported 444 disease outbreaks, 4,755 cases and 478 deaths related to the disease. Zimbabwe reported the highest number of outbreaks, 68%, followed by Ghana 15.7% and Zambia 13.96%. The highest number of cases was recorded by Zambia, 57.6%, followed by Zimbabwe, 18% and Angola, 6.7%. Table 22 shows countries reporting the disease in 2009. Isolating clinically affected animals, culling affected ones, and controlling ectoparasites are methods used to break the infective cycle.

Table 23: Countries reporting Dermatophilosis in 2009

Country	Outbreaks	Cases	Deaths
Zimbabwe	303	855	34
Ghana	70	283	0
Zambia	62	2,743	429
Mozambique	3	26	2
Angola	1	319	9
Benin	2	8	0
Namibia	1	7	0
Botswana	1	1	0
Nigeria	1	1	0
Tanzania	NS	1	0
Madagascar	NS	511	4
11 countries	**444**	**4,755**	**478**

NS=Not specified

4.2.10 Gumboro disease (Infectious bursal disease)

Eleven countries reported 133 disease outbreaks, 52,474 cases and 16,449 deaths related to IBD. Ghana reported the highest number of outbreaks, 64% followed by Zambia 17%. Ghana recorded the highest number of cases, 48% followed by Uganda 27%. The negative effects of IBD were successfully controlled by vaccination and implementing sound biosecurity.

Table 23 shows countries reporting IBD in 2009.

Table 24: Countries reporting IBD in 2009

Country	Outbreaks	Cases	Deaths
Ghana	85	25,376	11,670
Zambia	23	2,695	348
Nigeria	8	1,481	329
Uganda	6	14,399	0
Cameroon	6	2,829	1,862
Benin	1	3,000	1,637
Cote d'Ivoire	1	342	141
Mali	1	16	6
South Africa	1	1	1
Madagascar	NS	1,835	305
Kenya	NS	500	150
11 countries	**133**	**52,474**	**16,449**

NS=Not specified

4.2.11 Heartwater disease

Eighteen countries reported 549 outbreaks, 85,389 cases and 1,593 deaths related to Heartwater disease. Zimbabwe recorded the highest number of outbreaks, 43%, followed by Botswana 23% . South Africa reported the highest number of cases35%, followed by Zambia 22% and Burundi15%.

Table 24 shows countries reporting the disease in 2009.

Table 25: Countries reporting Heartwater disease in 2009

Country	Outbreaks	Cases	Deaths
Zimbabwe	238	763	220
Botswana	130	931	371
South Africa	70	3,004	179
Swaziland	43	139	65
Zambia	40	1,918	600
Somalia	11	52	33
Mozambique	4	5	5
Sudan	3	78	66
Togo	3	29	8
Namibia	3	13	11
Uganda	2	25	5
Senegal	1	23	4
Eritrea	1	4	2
Burundi	NS	1,266	0
Madagascar	NS	146	14
Tanzania	NS	82	9
Kenya	NS	51	1
Comoros	NS	10	0
18 countries	**549**	**8,539**	**1,593**

NS=Not specified

4.2.12 Theileriosis (East Cost fever)

Sixteen countries reported 57 outbreaks, 47,132 cases and 3100 deaths related to ECF. Zambia reported the highest number of outbreaks, 26%, followed by Zimbabwe, 25%, and Uganda 21%. The highest number of cases was reported by Burundi, 56%, followed by Zambia, 22% and Uganda, 9.4%. Table 25 shows countries reporting ECF in 2009.

Table 26: Countries reporting Theileriosis (ECF) in 2009

Country	Outbreaks	Cases	Deaths
Zambia	15	10,523	1,560
Zimbabwe	14	47	19
Uganda	12	4,426	115
Sudan	6	677	292
Mozambique	4	112	1
Angola	2	24	2
South Africa	2	317	286
South Africa	1	1	0
Malawi	1	8	7
Malawi	NS	1	1
Comoros	NS	30	0
Burundi	NS	26,594	0
Kenya	NS	588	50
Zambia	NS	2,585	650
Tanzania	NS	1,065	101
Kenya	NS	134	16
16 countries	**57**	**47,132**	**3,100**

NS=Not specified

4.2.13 Rabies

Thirty two countries reported 1,343 outbreaks and 15,333 cases/deaths from rabies. Of the reporting countries, Algeria had the highest number of outbreaks, 41%, followed by South Africa 17% and Namibia 8.9%. Zambia recorded the highest number of cases, 75%, followed by South Africa 10% and Algeria 3.8%. Table 26 shows countries reporting rabies in 2009. Some countries did not specify the species affected.

Table 27: Countries reporting rabies in 2009

Country	Outbreaks	Cases	Deaths
Algeria	554	580*	236**
South Africa	224	1530	371
Namibia	119	159	158
Zambia	68	11510	381
Swaziland	54	55	53
Zimbabwe	50	96	56
Botswana	46	120	63
Ghana	37	43	37
Tunisia	28	94	0
Nigeria	22	25	11
Togo	19	33	25
Mauritania	18	18	8
C.A.R.	18	119	45
Rwanda	18	43	38
Lesotho	15	40	38
Cote d'Ivoire	13	156	40
Gabon	10	10	10
Mozambique	7	11	5
Uganda	6	115	15
Malawi	5	3	3
Sudan	4	10	3
Kenya	2	15	10
Eritrea	2	11	11
Senegal	1	4	4
Guinea	1	1	0
Guinea Bissau	1	1	1
Niger	1	1	0
Ethiopia	0	390	286
Burundi	0	51	0
Angola	0	49	49
Tanzania	0	35	27
Gambia	0	5	5
32 Countries	**1343**	**15333**	**1989**

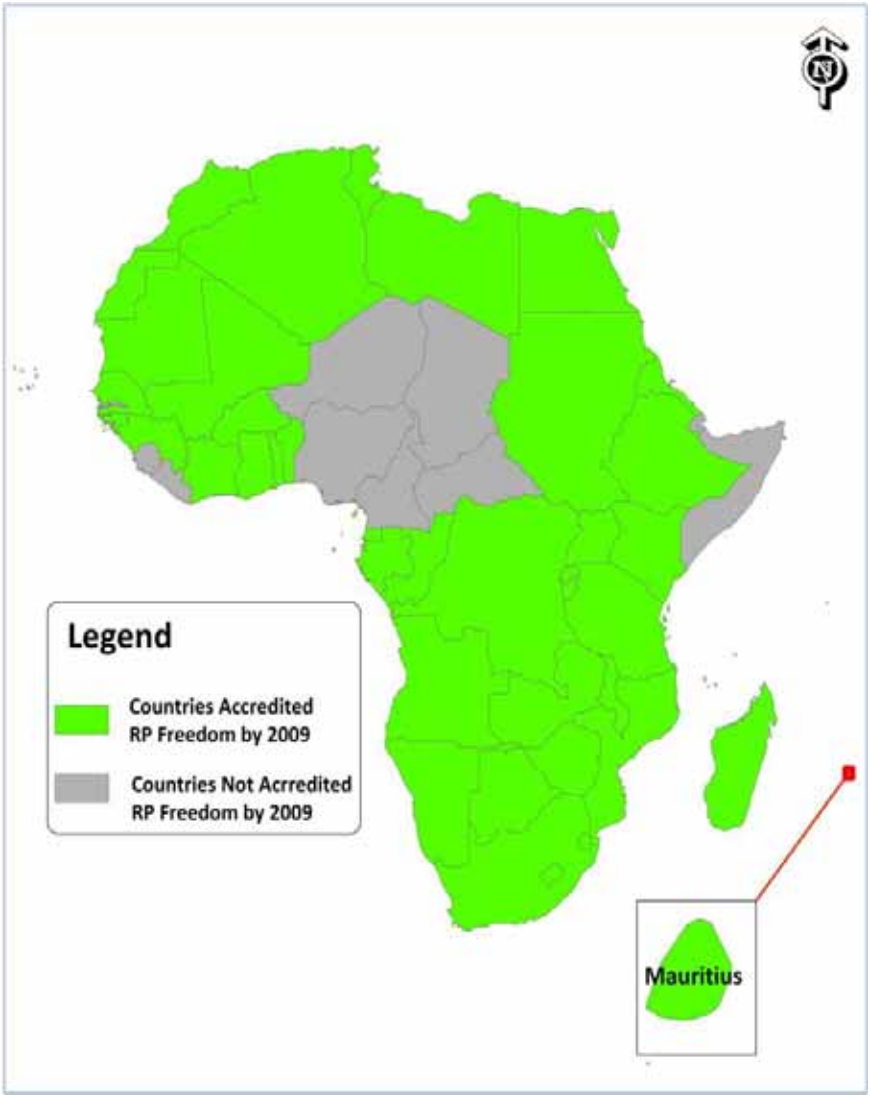
* = suspected rabies cases; ** =Confirmed cases/deaths

5. INTERVENTIONS IMPLEMENTED BY AU-IBAR IN 2009

5.1 The Verification of Rinderpest Eradication

The SERECU-II project continued with its objective of verifying eradication and ensuring accreditation of rinderpest freedom for each the three Somali ecosystem countries namely Ethiopia, Kenya and Somalia. During the year under review, Kenya joined Ethiopia in being accredited free from rinderpest by the OIE in May 2009, while the project assisted Somalia in the collation of surveillance data and formulation of dossier. The project in collaboration with FAO-GREP, also assisted 6 other African countries (Cameroon, CAR, Chad, Djibouti, Nigeria and Niger), which at the end of PACE had not yet fully progressed along the OIE pathway in fulfilling surveillance requirements for OIE freedom accreditation. At the same time, the two organizations embarked on assisting Liberia, Sierra Leone, Gambia and Sao Tome and Principe in the formulation of dossiers based on historical freedom.Map 8 shows rinderpest freedom accreditation status in 2009.

Map 8: Rinderpest freedom accreditation status in 2009



Following the eradication of rinderpest and the need to prevent resurgence of the disease, the project embarked on the development of an exit strategy which included virus sequestration, dealing with the hazard of rinderpest disease re-emerging from cryptic foci and the possibility of the emergence of another Morbillivirus. The documentation of the history of rinderpest eradication from Africa and its impact, including lessons learnt also got underway with the intention that lessons learnt from this eradication process will be used in controlling other diseases and also serve as an advocacy tool for further investment in the control and eradication of other TADs.

5.2 The Prevention and Control of HPAI in Africa

Following incursion of the current wave of HPAI outbreaks, the international community made enormous concerted efforts to prevent the spread of the disease to non-infected areas and assure rapid containment in infected areas. Among the key investments in this process were the development of the Integrated National Action Plans (INAPs) and mobilization of resources (financial, technical and political) to help countries to put in place preparedness and response measures. Africa as one of the 3 infected continents and has been said to be highly vulnerable to HPAI spread and viral establishment. Although the rapid spread of infection predicted earlier has not been witnessed, the risk of the disease becoming endemic in poultry seems to be taking shape in some African and Asian countries. In addition Africa remains highly vulnerable to HPAI spread due to the low bio-security of its poultry production systems. Over 80% of poultry raised in Africa is kept in backyards where it interacts freely with wild birds and humans. Additionally, Africa's public health and veterinary systems are also weak and lack the resilience and capacities required to respond to widespread disease emergencies. This, coupled with weak economies, characterized by under-funding of service delivery systems and poor infrastructure, make the potential impacts of widespread HPAI outbreaks quite threatening. This scenario could also facilitate viral establishment (endemicity) with the potential to generate pandemic strains of the influenza virus.

Key Interventions and Outcomes:

AU-IBAR with other technical partners and donors to mobilize resources to support MS in strengthening their preparedness and response capacities. Among the actions carried out were the following:

i. With other partners in the ALive platform, carried out an assessment of financial needs and gaps in Africa to provide an objective guide to targeted support. Au-IBAR also worked with the other partners in the conduct of assessment missions for the development of Integrated National Action Plans (INAPs) in AU member states from sub-Saharan Africa

ii. Development and execution of the Support Program for Integrated National Action Plans SPINAP); funded to the tune of 24.5 Million Euro by the EC.

iii. Mobilized resources to support preparedness, rapid response and outbreak control in 13 countries. The AfDB provided $6.5 Million to support infected and high risk countries.

iv. Joint AU-IBAR-ILRI diagnosis courses for veterinary and medical laboratory staff (85 people from 37 African countries) with the financial support of GTZ.

v. Worked together with ILRI on the execution of the early detection and response support for Avian Influenza (EDRSAI) project with the financial support of USAID

vi. Together with FAO Supported 3 TCP (Technical Cooperation Projects) on HPAI supported in Western/Central, Eastern and Southern Africa.

Through these interventions, AU-IBAR has made a useful contribution to the strengthening of national capacities of AU Member States for the prevention and control of avian and human influenza. Key achievements have been realized at country level in the following areas:

i. Awareness creation and communication for behavior change.

ii. Disease surveillance capacity and facilitation of field surveillance activities. Interventions targeted training of staff, expansion of the surveillance network, facilitation of field surveillance activities and procurement of surveillance activities, including ongoing procurement of 69 vehicles and 189 motor cycles for target countries. IBAR has also invested in the training of epidemiologists on the design of risk based surveillance systems and wildlife capture and sampling for disease surveillance from all target countries.

iii. Strengthening of laboratory capacities through acquisition of various types of equipment, reagents and skills. Key investments targeted diagnostic equipment for animal and human health laboratories, cold chain equipment, sampling and diagnostic reagents and consumables.

iv. Improved coordination and collaboration among stakeholders in animal and human health, communication and wildlife sectors. Investment in this areas has led to establishment and training of joint rapid response teams at the national level in 46 countries with some cascade training and establishment of teams in few countries to sub-national levels. As a result, both animal and human health professionals now, better understand the benefits of working together in managing health emergencies, especially those resulting from interactions at the animal-human-environment interface.

v. Establishment and financing of stamping out strategies, including compensation plans and procedures. This was particularly significant during active disease outbreaks where it was necessary to assure compensation for producers to cooperate in early reporting and stamping out operations.

vi. Preparation of integrated plans and contingency measures. Almost all countries have such plans and are continually testing and improving them through simulation exercises.

vii. Significant gains have been realized in the fight against HPAI in Africa. There is, however, need to continue to mobilize resources to support the eradication of H5N1 from the continent and to sustain capacity building of animal and human health services through implementation of the INAPs and their review to further align them to national goals in line with the one health strategic framework.

5.3 Control of PPR, Newcastle Disease, Sheep and Goat Pox, CCPP and CBPP

The present report confirms that Africa is burdened by a high prevalence of infectious livestock diseases, such as Newcastle disease (ND), contagious caprine pleuropneumonia (CCPP), *peste de petits ruminants* (PPR) and contagious bovine pleuropneumonia (CBPP) that hamper the development of livestock. Whilst they can be controlled through vaccination, the related vaccines are not regularly available and or accessible especially to poor livestock keepers. In this context and according to its mandate, AU-IBAR Has mobilized resources from the EU to reduce the impact of these diseases, through increased access and use of quality vaccines. The beneficiaries countries are Ethiopia,

Kenya, Somalia, Tanzania, Uganda, the Gambia, Mali, Mauritania, Senegal, Burkina Faso for PPR; Namibia, Tanzania and Zambia for CBPP; Benin, the Democratic Republic of Congo, Ghana, Togo and Burkina Faso for ND; and Ethiopia, Kenya, Somalia and Uganda for CCPP. Support is also being provided to Somalia to vaccinate against Sheep and goat pox. These countries were selected for support on the basis of eligibility under the European Union Food Facility funding (from which AU-IBAR is receiving financial support), disease risk and regional aspects to help contain the spread of these diseases.

Besides, supporting vaccination activities, AU-IBAR and its AU-PANVAC, CIRAD, COOPI, FAO, GALVmed, Terra Nuova and VSF-Germany are providing capacity for enhanced quality vaccine production and quality assurance; improvement of infrastructure and vaccine distribution channels. These interventions are conducted under two projects namely Vaccines for the Control of Neglected Animal Diseases in Africa (VACNADA) and Livestock Emergency Intervention in Somalia (LEISOM).

6. CONSTRAINTS

Despite the improvement in the number and quality of disease status reports from AU Member Sates, some challenges were still faced while analyzing presented data. These included: (i) delay in submissions of reports; (ii) reports missing key parameters such as: the number of outbreaks, the geo-reference (longitude and latitude coordinates) of the location where disease occurred, control measures employed, methods used to diagnose disease outbreaks as well as diagnostic methods used to confirm diseases, serotypes incase of diseases such as FMD, and specification of the particular or individual species affected in case of zoonoses. For example, most countries did not segregate sheep and goats when reporting disease in small ruminants.

7. CONCLUSIONS AND RECOMMENDATIONS

There was a tremendous improvement in submission of disease reports by MS to AU-IBAR in 2009. However, there is still room for improvement on the timeliness and quality of the data submitted as outlined in the concerns raised in section 6 above. It is hoped that these issues will henceforth be addressed by MS in subsequent reports to enable AU-IBAR improve on the quality of the Animal Health Year Book.

ANNEX

ANNEX 1: STATUS OF MONTHLY DISEASE REPORTING BY COUNTRIES IN 2009

	Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.	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.	Saharawi												
40.	Sao Tome & Principe												
41.	Senegal												
42.	Seychelles												
43.	Sierra Leone												
44.	Somalia												
45.	South Africa												

46.	Sudan												
47.	Swaziland												
48.	Tanzania												
49.	Togo												
50.	Tunisia												
51.	Uganda												
52.	Zambia												
53.	Zimbabwe												

KEY: Zero reports Reports received No reports received

ANNEX 2: DISEASES REPORTED DURING 2009

Disease	Outbreaks	Susceptible	Cases	Deaths	Destroyed
Rabies	1,343	217,536	15,333*	1,989**	311***
PPR	740	1,326,641	36,507	14,980	1,202
Bovine Brucellosis	686	140,106	8,405	405	859
Sheep Scab (mange)	679	73,655	21,318	259	156
Trypanosomiasis	584	1,329,030	92,051	3,419	1201
Lumpy Skin Disease	575	2,454,823	13,054	753	56
Newcastle Disease	567	13,819,385	201,069	106,416	4,680
Anaplasmosis	550	1,493,769	9,463	1,472	22
Heartwater	549	1,223,682	8,539	1,593	22
Sheep pox and goat pox	535	1,340,538	18,146	2,529	85
Babesiosis	452	1,410,526	5,157	706	4
Dermatophilosis	444	149,213	4,755	478	64
Blackleg	427	1,864,499	11,763	2,584	174
Pasteurellosis	416	60,825	4,842	1,967	89
FMD	378	7,839,726	33,776	976	274
Contagious Ecthyma	354	11,921	2,994	337	44
Tuberculosis	349	140,197	4,787	1,093	44,382
Contagious bovine pleuropneumonia	213	230,588	15,187	2,355	647
Contagious Ophthalmia	156	79,150	784	2	0
Anthrax	155	1,084,628	4,253	2,301	42
Brucellosis (Caprine & Ovine)	150	5,320	807	0	687
Mastitis	148	112,802	356	3	0
Fowl pox	139	75,302	7,635	2,983	71
Infectious Bursal Disease	133	8,315,959	52,474	16,449	10,990
Haemorrhagic Septicaemia	132	1,299,173	9,013	2,159	93
African swine fever	130	396,196	10,240	7,530	2,004
Cysticercosis	117	26,963	479	55	5,805
Coccidiosis	96	2,075,863	13,481	2,172	1,107
Echinococcosis/hydatidosis	85	5,353	2,809	209	3,349
Varroatosis	84	3,368	3,368	0	0
Infectious coryza	84	38,820	1,668	447	0
Foot rot	80	49,363	443	22	0
Old World Screwworm (*Chrysomya bezziana*)	70	25,990	342	12	0
Helminthosis	67	5,130	1,916	48	1
Distomatosis (liver fluke)	65	68,835	3,471	498	236
Contagious caprine pleuropneumonia	57	227,458	3,155	1,037	5
Enterotoxaemia	56	10,721	330	148	0
Salmonellosis	50	8,894,266	316,982	17,713	93,792
Ovine epididymitis (*Brucella ovis*)	49	1,502	501	4	0
Botulism	43	22,707	248	94	0
Canine Distempter	42	2,568	531	297	0
Rift Valley fever	42	20,893	417	198	0
Theileriosis	39	1,168,783	35,696	1,197	14
Bluetongue	37	12,136	884	248	1
Trichomononiasis	33	1,782	125	2	0
Strangles	32	27,356	1,078	7	0
Swine Erysipelas	28	10,559	372	308	18

Disease	Outbreaks	Susceptible	Cases	Deaths	Destroyed
Infectious bovine rhinotracheitis	25	18,767	610	304	0
Dourine	21	137	64	5	0
Malignant catarrhal fever	20	2,147	126	96	0
Pneumonia	19	1,638	193	35	0
Theileriosis (ECF)	16	39,862	11,119	1,617	0
African Horse Sickness	15	48,116	1,321	413	0
Fowl cholera	13	352,738	3,541	1,123	157
Fowl typhoid	11	2,909,107	13,291	5,844	0
Camel pox	11	794	96	4	0
Poisoning	10	2,047	192	133	0
Skin Necroses	10	816	76	6	0
Parafilariosis	9	2,547	49	0	0
Other Pasteurellosis	8	739	88	39	0
Bovine genital campylobacteriosis	8	50	14	1	0
Marek's disease	8	23,900	547	133	0
Ephemeral disease	7	225	14	1	0
Nairobi sheep disease	5	276	38	7	0
American Foulbrood of honey bees	4	200	32	0	0
Avian Infectious bronchitis	4	320	105	46	5
External parasites	3	131	19	2	0
Ovine chlamydiosis	3	239	8	4	0
Bovine Viral Diarrhoea	3	853	36	0	0
Tetanus	2	188	3	2	0
Theileriosis (Corridor disease)	2	317	317	286	0
Mineral deficiency	2	300	4	2	0
Other clostridial infections	2	12	12	11	0
Bloat	2	112	5	3	0
Enzootic bovine leucosis	2	871	13	1	0
Equine rhinopneumonitis	1	1	1	0	0
Exterotoxaemiamea	1	69	4	1	0
Abscess	1	57	5	0	0
Actinomycosis	1	2,005	1	0	0
Highly pathogenic avian influenza	1	0	0	0	0
Lameness	1	1	1	0	0
Leptospirosis	1	367	1	1	0
Lynpho-Adenitis	1	85	7	0	0
Tick paralysis	1	14	3	1	0
Tickborne disease	1	40	9	1	0
Toxaemia	1	50	15	14	0
Ring worm	1	28	5	0	0
Scabies	1	6	4	1	0
Horse pox	1	50	20	0	0
Internal Parasites	1	47	22	0	0
Avian leukosis	1	6	1	1	0
Avian mycoplasmosis	1	1,000	10	4	0
Chronic respiratory disease	1	718	396	31	40
Classical swine fever	0	566	102	86	1
ENTERITE COLLI BACILLAIRE	0	100	18	2	0
Enterovirus encephalomyelitis	0	63	26	26	0

Disease	Outbreaks	Susceptible	Cases	Deaths	Destroyed
Internal Parasite (Oesophagostomosis)	0	28	28	0	0
Actinobacillosis	0	1	1	0	0
Maedi-visna	0	12	4	0	0
Paratuberculosis (Johne's disease)	0	546	6	1	0
Stomatitis	0	1	1	0	0
Toxoplasmosis	4	93	15	0	0
Trichinellosis	0	9,200	294	0	2
Turkey Pox	0	1	1	0	0
Grand Total	**12,507**	**62,618,210**	**1,013,938**	**210,742**	**172,692**

* = suspected rabies cases, **confirmed cases/deaths, *** Destroyed cases

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ANNEX 3: CONTACT ADDRESSES FOR DIRECTORS OF VETERINARY SERVICES

NO	COUNTRY	NAME OF DIRECTOR	ADDRESS and POST OFFICE
1.	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 or 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 or Ricardona16@yahoo.com.br
3.	BENIN	Dr. Christophe Boni Monsia Directeur de l'élevage Ministère de l'agriculture, de l'élevage et de la Pêche	BP 2041, COTONOU, Benin Tel: (229) 21 330 285 / 21331665 / 21331768 Email: delevage@intnet.bj or pacebeni@intnet.bj or bonimonsia@yahoo.fr or bonimonsia@gmail.com
4.	BOTSWANA	Dr. T. K. Philemon-Motsu, BsC, DVM, MSc, Dic 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. Marcel Nagalo 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 Cell: (226) 70200670 Fax: (226) 5031 3529 Email: dvs@fasonet.bf
6.	BURUNDI	Dr. Pierre Bukuru 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: pierrebukurube@yahoo.fr

7.	CAMEROON	Dr Baschirou Moussa Demsa Directeur des Services de Vétérinaires, Ministère de l'élevage, des Pêches et des Industries Animales (MINEPIA). YAOUNDÉ, Cameroun	Tel:237 2231 60 48 / 22361049 / 99 50 93 Fax: 237 2231 60 49/2221 405/2222409 Email: baschiroudemsa@yahoo.fr
8.	CAPE VERDE	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 Tel: (238) 264 75 47 / 998 15 30 Email: afonso.semedo@maap.gov.cv
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 1 777/520797 Email: ayacoub@gmail.com or pacechad@intnet.td or 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: fahar1951@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
12.	DEMOCRATIC REPUBLIC OF CONGO	Dr. Honoré Robert N'Lemba Mabela Directeur Chef des Services de la production et la santé Animales DPSA Ministère 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 or pace.rdc@micronet.cd
13.	COTE D'IVOIRE	Dr AMATCHA Charlotte 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 Cell: (225) 05 05 21 61 Fax: (225) 20219085 Email: miparh_dsvci@yahoo.fr

14.	DJIBOUTI	Dr. Mouassa Ibrahim Cheick Directeur général de l'élevage et des Services 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
15.	EGYPT	Dr. Mohamed Mostaza Elgarhy Chairman of the General Organization of Veterinary Services (GOVS) Ministry of Agricultureb and Land Reclamation	1st nadi El Seid Street-Dokki Giza 12618-CAIRO, Egypt Tel: (202) 7481750 Fax: (202) 336 17 27 Email: mo_garhy@hotmail.com
16.	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 or afewekim@moa.gov.er
17.	ETHIOPIA	Dr. Berhe G/Igziabher OIE National Delegate Head, Animal & plant Health Regulatory Department Ministry of Agriculture and Rural Development	Lamberet (Near ILRI) P.O Box 62347, Addis Ababa , Ethiopia Tel: Office: +251 116 460119 Cell: (251) 911254 374 Fax: 251 116 478591 Email: berheg@gmail.com
18.	GABON	Dr Morgan Bignoumba Directeur de l'Elevage et des Industries Animales	B.P. 136, Libreville Tel: +241 72 24 42 Cell: +241 05 08 78 77 Email: bigne.morghen@yahoo.fr
19.	GAMBIA	Dr. Kebba Daffeh Director of veterinary services Department of Veterinary services	ABUKO, The Gambia Tel: (+220) 4390 820/7575 Cell: (+220) 990 2441 Fax: (220) 4397 575 Email: kebbadaffeh@yahoo.co.ke
20.	GHANA	Dr Samuel William Hanson Chief Veterinary Officer, Veterinary Services Directorate Ministry of Feed and Agriculture	P.O Box M161, ACCRA, Ghana Tel. (233) 21 77 57 77 / 21 77 60 15 / 21 77 60 21 Cell: (+233)243179567 Fax: (233) 21 77 60 21 / 21 66 82 45 Email: vsdghana@gmail.com or vsdghana@yahoo.com or vetsdept@africaonline.com.gh
21.	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

22.	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 or pacegbissau@hotmail.com
23.	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
24.	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
25.	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
26.	LIBERIA	Dr. Joseph R. N. Anderdon Director of Veterinary Services	P.O Box 10-4094 MONROVIA, Liberia Email: Joeelson2000@yahoo.com
27.	LIBYA	Dr. Giuma EL Aerf Elhafi Chief Veterinary Officer	P.O Box 7344, Tripoli-Aen Zara, Libya Tel: 00218 214 831015 / 00218 21 4831016 Fax: 00218214832123 Email: Giuma109@hotmail.com
28.	MADAGASCAR	Dr. Armand Bibias Lalaonirina Directeur des Services Vétérinaires Ministère de l'Agriculture, de l'Elevage et de la pêche	AMPANDRIANOMBY B.P 291 ANTANANARIVO 101, MADAGASCAR Tel: (261-20) 24 636 38 or (261-20) 22 665 36 Fax: (261-20) 22 665 34
29.	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 Cell: +265 888371509 Fax: (265-1)75 13 49 Email: pchikungwa@yahoo.com

30.	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
31.	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 or demba.db@gmail.com
32.	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 or moa-dvs@mail.gov.mu
33.	MOZAMBIQUE	Dr. Florencia A. Massango Cipriano OIE National Delegate Head, Department of Animal Health, Ministry of Agriculture and Rural Development Director of Veterinary Medicine	Praca dos Herois Mocambicanos, P O Box 1406, Maputo, MOZAMBIQUE Tel: (258-21) 460082/460494 Fax: (258-21) 460479 Email: fmcipriano@map.gov.mz or Flor.cipriano@gmail.com
34.	NAMIBIA	Dr. C. Bamhare Ag. 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: bamharec@mawrd.gov.na
35.	NIGER	Dr. Saley Mahamadou Directeur de la Santé Animale, Ministère de Ressources Animale	B.P. 12091 NIAMEY, Niger Tel: (227) 733 184 or 227 207 331 84 Fax: (227) 733 186/738486 or (227) 20732692 Email: dvsniger@yahoo.fr or st2006mahamadou@yahoo.fr
36.	REPUBLIC OF CENTRAL AFRICA	Dr. Emmanuel NAMKOISSE Directeur santè Animal/coordonnateur National SPINAP Agence Nationale de Dèveloppemment de L'elevage (ANDE)	BP: 1509 Bangui Tel: (236) 7504 2978/70011721 Fax: (236) 21617425 Email: nam_emma@yahoo.fr
37.	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

38.	RWANDA	Dr. Rutagwenda Théogène Ministère de l'Agriculture et des Ressources Animales Directeur de l'Office Rwandais du Développement des Ressources Animales (RARDA)	P.O. Box 621 MINAGRI, KIGALI, Rwanda Tel: (250) 084 75 493 Tel/Fax: (250) 589 716 / 585057 Email: rutagwendat2006@yahoo.com
39.	SAO TOME ET PRINCIPE	Dr. Vicente Dos Ramos Josè Barreto Idalecio Directeur de l'Elevage Ministère de Economia	Avenida Marginal 12 de Julio Caixa Postal 718 SAO TOME et Principe Tel: (239) 991 07 18 / 22 22 386 Email: dpecuaria@yahoo.com.br or Noemigor2000@yahoo.com.br
40.	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
41.	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
42.	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
43.	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 Cell: +254722878678 Email: habibahamud@yahoo.com
44.	SOUTH AFRICA	Dr Ntshabele Boitshoko Chief Director: Food, Animal Health and Disaster Management Department of Agriculture Director of Veterinary Services	Private Bag X 250 Pretoria 0001, Gauteng Province South Africa Tel: (27-12) 3196500/3 Fax: (27-12) 319 6281 Email: cdfahdm@nda.agric.za or DVS@nda.agric.za
45.	SUDAN	Dr. Mohammed Abdel Razig bdel Aziz Under Secretary Ministry of Animal Resources and Fisheries	PO Box 293, KHARTOUM SUDAN Tel: (249) 912 305 573 Fax: (249-) 154 29 89 36 Email: pacesud@yahoo.com or marazig@hotmail.com

46.	SWAZILAND	Dr. Roland Dlamini Director of Veterinary and Livestock Services Ministry of Agriculture and Cooperatives	PO Box 162 MBABANE, Swaziland Tel: (268) 404 2731-9/404 6948 Fax: (268) 404 9802 Email: thwalar@gov.sz or sd-fangr@realnet.co.sz
47.	TANZANIA	Dr. Win Mleche Director of Veterinary Services Ministry of Livestock Development and Fisheries	PO Box 9152 Dar Es Salaam, Tanzania Cell: (+255) 784358549 Fax: +255222862592 Email: dvs@mifugo.go.tz or wcmleche@yahoo.co.uk
48	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 Tel: 228 221 36 45/ 221 60 33 Cell 228 909 27 30 Fax: 228 221 71 20 Email: dbatawui@yahoo.fr
49.	TUNISIA	Dr. Malek Zrelli Directeur Gènèral des Services Vétérinaires Ministère de l'Agriculture et des ressources hydrauliques,	30 Rue Alain Savary Tunis 1002, TUNISIA Tel: 216 717 945 86 Fax:216 717 879 06 Email: Zrelli.malek@iresa.agrinet.tn
50.	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 Cell: 256-772-653139 Fax: (256-41) 320 428/321 070 Email: dar.maaif@infocom.co.ug or nicholaskauta@yahoo.co.uk
51.	ZAMBIA	Dr. Moto Peter Crispin Mangani, Director of Veterinary and Livestock Development, Ministry of Agriculture & Co-operatives	P.O. Box 50060 Lusaka, ZAMBIA Tel: (260 – 1) 250274 Fax: (260 – 1) 252608 Email : aphhq@zamnet.zm or pmangani@maff.gov.zm
52	ZIMBABWE	Dr. Josphat Nyika Principal Director of veterinary services Ministry of Agriculture and rural Development Division of Livestock and Veterinary Services	18 Borrowdale Road P.O Box CY 66 HARARE, ZIMBABWE Tel: (263-4791227 Fax: (263-47 91227 Email: nyika06@yahoo.com or veeu@africaonline.co.zw

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

ISSN 1811-007X